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MOSAICS
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EDUCATIONAL MOSAICS:

A COLLECTION

FROM MANY WRITERS (CHIEFLY MODERN) OF THOUGHTS
BEARING ON EDUCATIONAL QUESTIONS OF
THE DAY.

BY

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PREFATORY NOTE.



THE thought of compiling a volume of choice selections from different educational writers is by no means a new one to me. I have long had it in mind, and have been deterred from the attempt partly by the labor involved in copying, and partly by a steady pressure of regular work. But—thanks to the type-writer and to one whose industry is only surpassed by her skill and good taste—the thought has at last become a reality, and all that remains is a prefatory note, a sort of inscription over the portal, for the information of those who look within.

Let me say frankly that it makes no high pretensions. It is not a pedagogical encyclopædia in any sense of the word, nor does it profess to be exhaustive in any direction. It is very far from being a systematic treatise on education; on the contrary, I have aimed to avoid any rigid philosophical arrangement, and have purposely omitted any bibliographical or biographical notes, as being foreign to its simple character and aim. I cannot claim that every good writer is represented, or that each is represented by his best. I have been constantly embarrassed by the abundance of riches, and sorely perplexed what to leave out. It would have been easier to make a volume of twice the size; and, should another edition be called for, considerable additions may be made.

All that is claimed for the volume is, that everything in it is worth reading.

Those who are acquainted with educational literature will recognize many familiar paragraphs and favorite passages.

Those who lack either opportunity, time, or inclination to read the numerous writings on Education, and who still desire to know something of the drift of educational thought, will find it here in brief compass.

Those who love beautiful thoughts on great themes will meet with many such in these mosaics.

Teachers who have a few leisure moments, interspersed with hard hours of toil, will find much to interest, to comfort, to stimulate, and to help.

While especially designed for teachers, it is full of thought-provoking matter for the intelligent parent, and for all those who are interested in that greatest of all living questions—the proper education of the ten million youth of America who, in our private and public schools, are being trained for life's duties, pleasures, and privileges.

T. J. M.

PROVIDENCE, R.I., July, 1887.

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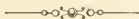
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EDUCATIONAL MOSAICS.

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It is a shame not to have been educated ; for he who has received an education differs from him who has not, as the living does from the dead.

ARISTOTLE.

It is clear that in whatever it is our duty to act, those matters also it is our duty to study.

THOMAS ARNOLD.

SPECIAL APTITUDES.

THE ideal of a general, liberal training is to carry us to a knowledge of ourselves and the world. We are called to this knowledge by special aptitudes which are born with us ; the grand thing in teaching is to have faith that some aptitudes for this every one has. This one's special aptitudes are for knowing men—the study of the humanities ; that one's special aptitudes are for knowing the world—the study of nature. The circle of knowledge comprehends both, and we should all have some notion, at any rate, of the whole circle of knowledge. The rejection of the humanities by the realists, the rejection of the study of nature by the humanists, are alike ignorant. He whose aptitudes carry him to

the study of nature should have some notion of the humanities; he whose aptitudes carry him to the humanities should have some notion of the phenomena and laws of nature. Evidently, therefore, the beginnings of a liberal culture should be the same for both. The mother tongue, the elements of Latin and of the chief modern languages, the elements of history, of arithmetic and geometry, of geography, and of the knowledge of nature, should be the study of the lower classes in all secondary schools, and should be the same for all boys at this stage. So far, therefore, there is no reason for a division of schools. But then comes a bifurcation, according to the boy's aptitudes and aims. Either the study of the humanities or the study of nature is henceforth to be the predominating part of his instruction.

MATTHEW ARNOLD.

THE LIVING AND NOT THE DEAD.

AMONG men of my own generation I do both admire and envy those who I am told make it a daily rule to read a little of Homer or Thucydides, of Horace or Tacitus. I wish I could do the same; and yet I must frankly say I should not do it if I could. Life, after all, is limited, and I belong enough to the present to feel satisfied that I could employ that little time each day both more enjoyably and more profitably if I should devote it to keeping pace with modern thought, as it finds expression even in the ephemeral pages of the despised review. Do what he will, no man can keep pace with that wonderful modern thought; and if I

must choose, — and choose I must, — I would rather learn something daily from the living who are to perish, than daily muse with the immortal dead. Yet for the purpose of my argument I do not for a moment dispute the superiority — I am ready to say the hopeless, the unattainable superiority — of the classic masterpieces. They are sealed books to me, as they are to at least nineteen out of twenty of the graduates of our colleges ; and we can neither affirm nor deny that in them, and in them alone, are to be found the choicest thoughts of the human mind and the most perfect forms of human speech.

CHARLES FRANCIS ADAMS, JR.

It is clearly the law of our nature, that the triumphs of Intellect are to be gained only by laborious thought, and by the gains of one generation being made the starting-point for the acquisition of the next.

DUKE OF ARGYLL.

LEGISLATORS AND EDUCATION.

THAT the education of youth ought to form the principal part of the legislator's attention, cannot be a doubt, since education first moulds, and afterwards sustains the various modes of government. The better and more perfect the systems of education, the better and more perfect the plan of government it is intended to introduce and uphold. In this important object, fellow-citizens are all equally and deeply concerned ; and as they are all united in one common work for one common

purpose, their education ought to be regulated by the general consent, and not abandoned to the blind decision of chance or to idle caprice.

ARISTOTLE.

INSPIRATION BETTER THAN INSTRUCTION.

THE teacher of the future must have a comprehensive idea of the condition of modern thought in all departments and the power and learning of a master in that which he assumes to teach. He must be able to go behind all text-books and manuals, make his own analysis of his subject, and be capable of bringing out fresh and original conceptions of his field of study. The teacher who cons over a set of passages or formulas till he gets them by heart and then, abandoning vigorous investigation, plods on in the same tread-mill round for a score of years, is guilty of obtaining his salary by false pretences. He only can teach who looks down upon the elements of his department, from the heights of broad and solid attainment. Moreover, whatever his knowledge may be, he cannot teach with vigor after he ceases to be a daily learner. He must keep the machinery of his own mind hot with action, if he would excite activity in the minds of his students. Example is better than precept, inspiration is better than instruction. When a class of students go out of the lecture room red in the face and wax eloquent over the subject-matter of their studies, and delay their dinner hour in the absorbing heat of their intellectual combat, the teacher's work is more than half accomplished. Like all human institutions, the success of the college of the

future, in the best sense of the term, must be a question of men. That education is the best, as a general rule, which brings the student into face-to-face contact and relation with the greatest number of magnetic, controlling, and formative minds. It is not enough that a teacher be learned; he must be earnest, must love his work, and love young men; he must enter into an unfeigned sympathy with them in all their mental and moral life; he must pour out upon them the results of his reading, his thought, and experience, with unsparing prodigality, forgetful of himself and his own reputation; even willing, like a true mother, to give up his own mental being if he can only see the life of other souls springing into power under his hand.

MARTIN B. ANDERSON.

EDUCATION and instruction are, according to the use of language, two different things; the former including the whole of physical, moral, and intellectual development, but the latter applicable more properly to the training of the intellect.

ARETINUS.

OF TEACHING HISTORY.

THE main difficulty with existing methods of teaching history seems to be that the subject is treated as a record of dead facts, and not as a living science. Pupils fail to realize the vital connection between the past and the present; they do not understand that ancient history was the dawn of a light which is still shining

on; they do not grasp the essential idea of history, which is the growing self-knowledge of a living, progressive age. Etymologically and practically, the study of history is simply a learning by inquiry. According to Professor Droysen, who is one of the most eminent historians in Berlin, the historical method is merely *to understand by means of research*. Now it seems entirely practicable for every teacher and student of history to promote, in a limited way, the "know thyself" of the nineteenth century by original investigation of things not yet fully known, and by communicating to others the results of his individual study. The pursuit of history may thus become an active instead of a passive process; an increasing joy instead of a depressing burden. Students will thus learn that history is not entirely bound up in text-books; that it does not consist altogether in what this or that learned authority has to say about the world. What the world believes concerning itself, after all that men have written, and what the student thinks of the world, after viewing it with the aid of guide-books and with his own eyes,—these are matters of some moment in the developmental process of that active self-knowledge and philosophic reflection which make history a living science instead of a museum of facts and of books "as dry as dust." Works of history, the so-called standard authorities, are likely to become dead specimens of humanity unless they continue in some way to quicken the living age. But written history seldom fails to accomplish this end, and even antiquated works often continue their influence if viewed as progressive phases of human self-knowledge. Monuments and inscriptions can never grow old so long

as the race is young. New meaning is put into ancient record; fresh garlands are hung upon broken statues; new temples are built from classic materials, and the world rejoices at its constant self-renewal.

HERBERT B. ADAMS.

ATTAINABLE ENDS.

THE appropriate and attainable ends of a good education are the possession of gentle and kindly sympathies; the sense of self-respect and of the respect of fellowmen; the free exercise of the intellectual faculties; the gratification of a curiosity that "grows by what it feeds on," and yet finds food forever; the power of regulating the habits and the business of life, so as to extract the greatest possible portion of comfort out of small means; the refining and tranquillizing enjoyment of the beautiful in nature and art, and the kindred perception of the beauty and nobility of virtue; the strengthening consciousness of duty fulfilled; and, to crown all, "the peace which passeth all understanding."

SARAH AUSTIN.

LINGUISTIC STUDY AND REAL KNOWLEDGE.

THE ends of discipline in all linguistic study must be made with constant additions to real knowledge in the largest sense of the terms. There should be a constant aim in the study of Greek and Latin, especially to introduce the student into the heart of ancient life, so that its inner "form and pressure" shall be so stamped upon

the pupil's mind that all ancient art, culture, politics, and civilization shall be reproduced by the means of the very sentences which he subjects to analysis in his daily tasks. Thucydides and Tacitus should be not only textbooks of Greek and Latin, but of history, of morals, of political economy, and philosophy as well. Plato and Aristotle should be read not only to learn Greek syntax, but for instruction in all the best thoughts of a great era in the world's intellectual life — as a necessary preparation for all the philosophical questions of to-day. The old masters of literature should be read and tried by such canons of criticism as we apply to the many-sided and thoughtful productions of our own age. In studying ancient authors, in reconciling their contradictory statements, in correcting their personal and class prejudices, and sifting out fact from legend, and patriotic concealment and exaggeration from real truth, the learner should receive a training in weighing evidence, testing the competency of witnesses, and handling the laws of interpretation, which shall prepare him for all the sternest conflicts of business, scholastic or political life. I have spoken of our tongue as a part of a college curriculum. I believe that its origin should be studied in our immediate mother-tongues, the Anglo Saxon and Norman French, so that while our young men shall be taught all the elegance of expression which our best writers illustrate, they may also learn to have faith in the picturesqueness and graphic power of those native and homely idioms which are the chosen vehicle of all who would successfully wield the minds and the hearts of the rank and file of society.

MARTIN B. ANDERSON.

AND the plea that this or that man has no time for culture will vanish as soon as we begin to examine seriously our present use of our time.

MATTHEW ARNOLD.

STUDY OF POLITICAL SCIENCE.

ANOTHER reason for the study of Political Science in college is, that thereby is laid a real foundation on which to build. Knowledge in this department is not, indeed, like mathematical or chemical knowledge, where the student must begin at the beginning, but even this to be of any service must be obtained systematically. All our political speeches, and a large part of the newspaper articles, assume a certain degree of knowledge on the part of the hearer or reader. Without this previous knowledge much that is heard and read is not fully comprehended. This would be true if the speakers and writers were themselves fully masters of their subject. But in too many cases they speak and write of that of which their own knowledge is quite superficial. We may safely say that to a large extent the people are but little the wiser for the political matter which they hear and read. But with a definite knowledge of the leading features of our system, and of the more important facts of our political history, there would be constant accumulations of knowledge, and a fair understanding of current political events.

I. W. ANDREWS.

OF CO-EDUCATION.

IT has been objected — and the objection, if well founded, would, to my mind, be a most serious one —

that women cannot, as a rule, be educated in the classrooms with men without losing that womanly delicacy which forms so charming a grace of true womanly character. Here, it seems to me, *a priori* reasoning is of little worth. The appeal must be to experience, which has been large enough in several important colleges to determine whether the objection is well taken. I am prepared to say that, so far as my observation has extended, either in studying the character of our women graduates or of those of other colleges, the objection has no foundation in fact. The American young man, however rude he may sometimes be with those of his own sex, is habitually courteous to the other sex. I see no reason to believe that the conditions of life in a well-ordered college where both sexes are instructed are any more unfriendly to the cultivation or preservation of feminine delicacy and sensibility than the usual conditions of life in American society outside of the college.

Perhaps the most serious fear cherished concerning the admission of women to colleges with men was that their health would be sacrificed. I confess that I was formerly not without solicitude upon this point myself. But I think that those who have had the best opportunities for observing the actual effect of college work on young women share my conviction that the solicitude we felt in advance has not been justified. We believe that if a young woman is in good health when she enters college, has fair abilities, will use common prudence in regulating her life, will not attempt to give too much time to social pleasures, but will study and live in a natural, sensible manner, she will not suffer in health, but will often gain in strength, by the regularity and stimu-

lation of her college duties. At any rate, there are no facts, so far as I know, which indicate that the strain upon the physical strength is greater in the life of the women who are in the colleges with men than in the separate colleges for women. The figures gathered by the Association of College Alumnae and published by the Massachusetts Labor Bureau, to show the effects of college life on women, seem to afford no ground for an unfavorable judgment on the colleges in which the sexes are taught together. The chief objections which have been raised to the joint education of the sexes seem, therefore, to have but little, if any, weight. Women can be hereafter, as they have been now for years, safely and wisely educated in the class-rooms with men.

JAMES B. ANGELL.

TALKING AND LEARNING.

ALL quick inventors and ready, fair speakers must be careful that to their goodness of nature they add also in any wise study, labor, leisure, learning, and judgment, and then they shall indeed pass all other (as I know some do in whom all those qualities are fully planted), or else if they give over-much to their wit, and over-little to their labor and learning, they will soonest over-reach in talk, and farthest come behind in writing, whatsoever they take in hand.

ROGER ASCHAM.

THE BEST TALENT FOR SECONDARY SCHOOLS.

I INSIST that the interests of college and of high culture require that the best educational talent be assigned

to the academy. If you *must* have a poor teacher, put him in the college, instead of placing him at the head of the academy. He will do less harm in the college. I may be allowed to suggest that in every institution the best teacher should take the lowest class. . . .

The true teacher teaches himself; that is, he impresses his own character, his own intellectual and moral habits, on his pupils. Hence, as Milton says of the poet, "he ought to be a pattern of the best and honorablest things." If the principal of the academy is the right kind of a man, he can do more for his pupil than the college professor can. He can give to his mind a direction which shall continue through college and life.

JOSEPH ALDEN.

IT is only the superior men in a science, or in an art, those who have sounded all its depths, and have carried it to its farthest limits, who are capable of composing such elementary treatises as are desirable.

ARBOGAST.

FETICH-WORSHIP.

FOR myself, I cannot but think that the species of sanctity which has now, ever since the revival of learning, hedged the classics, is destined soon to disappear. Yet it is still strong; indeed, it is about the only patent of nobility which has survived the levelling tendencies of the age. A man who at some period of his life has studied Latin and Greek is an educated man; he who has not done so is only a self-taught man. Not to have studied Latin, irrespective of any present ability to read

it, is accounted a thing to be ashamed of; to be unable to speak French is merely an inconvenience. I submit that it is high time that this superstition should come to an end. I do not profess to speak with authority, but I have certainly mixed somewhat with the world, its labors and its literatures, in several countries, through a third of a century; and I am free to say, that whether viewed as a thing of use, as an accomplishment, as a source of pleasure, or as a mental training, I would rather myself be familiar with the German tongue and its literature than be equally familiar with the Greek. I would unhesitatingly make the same choice for my child. What I have said of German as compared with Greek, I will also say of French as compared with Latin. On this last point I have no question. Authority and superstition apart, I am indeed unable to see how an intelligent man, having any considerable acquaintance with the two literatures, can, as respects either richness or beauty, compare the Latin with the French; while as a worldly accomplishment, were it not for fetich-worship, in these days of universal travel the man would be properly regarded as out of his mind who preferred to be able to read the odes of Horace, rather than to feel at home in the accepted neutral language of all refined society. This view of the case is not yet taken by the colleges.

“The slaves of custom and established mode,
With pack-horse constancy we keep the road,
Crooked or straight, through quags or thorny dells,
True to the jingling of our leader’s bells.”

And yet I am practical and of this world enough to believe that in a utilitarian and scientific age the living

will not forever be sacrificed to the dead. The worship even of the classical fetich draweth to a close ; and I shall hold that I was not myself sacrificed wholly in vain, if what I have said here may contribute to so shaping the policy of Harvard that it will not much longer use its prodigious influence towards indirectly closing for its students, as it closed for me, the avenues to modern life and the fountains of living thought.

CHARLES FRANCIS ADAMS, JR.

THE INSTINCT FOR BEAUTY.

I CANNOT really think that humane letters are in danger of being thrust out from their leading place in education, in spite of the array of authorities against them at this moment. So long as human nature is what it is, their attractions will remain irresistible. They will be studied more rationally, but they will not lose their place. What will happen will rather be that there will be crowded into education other matters besides, far too many. There will be, perhaps, a period of unsettlement and confusion and false tendency ; but letters will not in the end lose their leading place. If they lose it for a time, they will get it back again. We shall be brought back to them by our wants and aspirations. And a poor humanist may possess his soul in patience, neither strive nor cry, admit the energy and brilliancy of the partisans of physical science, and their present favor with the public, to be far greater than his own, and still have a happy faith that the nature of things works silently on behalf of the studies which he loves, and that, while we shall all have to acquaint ourselves with the great re-

sults reached by modern science, and to give ourselves as much training in its disciplines as we can conveniently carry, yet the majority of men will always require humane letters, and so much the more as they have the more and the greater results of science to relate to the need in man for conduct, and to the need in him for beauty. . . .

The instinct for beauty is set in human nature, as surely as the instinct for knowledge is set there, or the instinct for conduct. If the instinct for beauty is served by Greek literature as it is served by no other literature, we may trust to the instinct of self-preservation in humanity for keeping Greek as part of our culture. We may trust to it for even making this study more prevalent than it is now. As I said of humane letters in general, Greek will come to be studied more rationally than at present ; but it will be increasingly studied as men increasingly feel the need in them for beauty, and how powerfully Greek art and Greek literature can serve this need.

MATTHEW ARNOLD.

SEVERE STUDY.

AN effective way to excite interest, and that of the right kind, in school, is not to remove difficulties, but to teach the pupils how to surmount them. A text-book so contrived as to make study mere play, and to dispense with thought and effort, is the worst text-book that can be made, and the surest to be, in the end, a dull one. The great source of literary enjoyment, which is the successful exercise of intellectual power, is, by such a mode of presenting a subject, cut off. Secure, therefore, severe study. Let the pupil see that you are

aiming to secure it, and that the pleasure that you expect that they will receive is that of firmly and patiently encountering and overcoming difficulty ; of penetrating, by steady and persevering effort, into regions from which the idle and the inefficient are debarred ; and that it is your province to lead them forward, and not to carry them. They will soon understand this and like it.

JACOB ABBOTT.

TWO ASPECTS OF INDUSTRIAL EDUCATION.

THE phrase "industrial education " may have, and has acquired, two entirely distinct meanings. As understood by one party, it means the kind of education that is intended to foster industrial skill and to fit the pupil, while at school, for the industrial pursuits of later life. . . . But there is a totally different sense in which the phrase "industrial education " may be understood ; not that education shall be made subservient to industrial success, but that the acquisition of industrial skill shall be a means for promoting the general education of the pupil ; that the education of the hand shall be a means of more completely and more efficaciously educating the brain. It is in the latter sense, in which labor is regarded as a means of mental development, that industrial education is understood by the most enlightened of its advocates. They are well aware that to introduce a trade into the school is to degrade the school ; that to take away from the young the time that should be dedicated to the elements of general culture and devote it to training them in a special aptitude, however useful

later on, is to impair the humanity of the children. They desire nothing of this sort, and they ask that a workshop be connected with every school, for no other reason than that a chemical laboratory is connected with every college.

FELIX ADLER.

PUBLIC VERSUS PRIVATE EDUCATION.

EXPERIENCE seems to point out no one plan of education as decidedly the best ; it only says, I think, that public education is the best where it answers. But then the question is, Will it answer with one's own boy ? and if it fails, is not the failure complete ? It becomes a question of particulars : a very good private tutor would tempt me to try private education, or a very good public school, with connections amongst the boys at it, might induce me to enter upon public. Still there is much chance in the matter ; for a school may change its character greatly, even with the same master, by the prevalence of a good or bad set of boys ; and this no caution can guard against. But I should advise anything rather than a private school of above thirty boys. Large private schools, I think, are the worst possible system ; the choice lies between public schools and an education whose character may be strictly private and domestic.

THOMAS ARNOLD.

WHOEVER wishes to study with success, must exercise himself in these three things : in getting clear views of a subject ; in fixing in his memory what he has understood ; and in producing something from his own resources.

AGRICOLA.

THE informed man in the world may be said to be always surrounded by what is known and friendly to him, while the ignorant man is as one in a land of strangers and enemies.

NEIL ARNOTT.

A SUCCESS.

THE negro has falsified the predictions of his enemies, and dispelled the fears of his friends. They said he would give himself to riot and plunder; but he earned the gratitude of the South by his fidelity to the family and the plantation, while his master was fighting against his freedom. They said the freedman would not work, but he raised in one year nearly four million bales of cotton. They ridiculed "Sambo" in uniform, but the steady lines at Petersburg and the charge at Fort Wagner attest his heroism.

What grander enterprise could there be than to take up the cause of a race like this, — the pariahs of the peoples, — distrusting their old guides and suspecting their present leaders, and prepare for them with timely zeal, and by wise methods, an army of educators who shall give tone to their character, direction to their ideas, and by moulding the now plastic material, secure a well-laid foundation, upon which the workmen of the future shall build to the honor of the race and of the nation, and to the glory of God?

S. C. ARMSTRONG.

NEWS-ROOMS AND LIBRARIES.

IF you wish to be living always in the present, if you wish to have the din of its contentions always in your

ears, and the flush of its fleeting interests always on your brow, above all, if you wish to have your opinions ready-made for you, without the trouble of inquiry, and without the discipline of thought, then, I say, come from your counting-house and spend the few hours of leisure which you may have in exhausting the columns of the daily press; but if your ambition be a nobler one, if your aim be higher, you will find yourselves often passing from the door of the news-room into that of the library, — from the present to the past, from the living to the dead, — to commune with those thoughts which should have stood the test of time, and which have been raised to the shelves of the library by common consent of all men, because they do not contain mere floating information, but instruction for all generations and for all times.

DUKE OF ARGYLL.

POLISHED MARBLE.

I CONSIDER a human soul without education like marble in a quarry, which shows none of its inherent beauties until the skill of the polisher fetches out the colors, makes the surface shine, and discovers every ornamental cloud, spot, and vein that runs throughout the body of it. Education, after the same manner, when it works upon a noble mind, draws out to view every latent virtue and perfection, which, without such helps, are never able to make their appearance.

JOSEPH ADDISON.

ALWAYS trust, therefore, for the overcoming of a difficulty, not to long-continued study after you have once got bewildered, but to repeated trials, at intervals.

FRANCIS BACON.

MUSIC AND THE GREEKS.

As gymnastics was intended to harmonize the powers of the body, so music was to order and to regulate the soul. . . . A Greek who could not distinguish between semi-tones, or even between quarter-tones, would have been thought as ignorant as a classical scholar who quoted Homer with a false quantity. Also, they were far more sensitive than laymen usually are among ourselves to the essential characteristics of different keys. We have abundant evidence that every Greek boy was carefully trained in the theory and practice of the musical art, and that it was regarded by masters of all schools as of the first importance to intellect and morality. Plato, Aristotle, and Aristophanes agree in this. Music was not only the gymnastic of the ear and the voice, but of the spirit, and the foundation of all the higher life. Its rhythm and harmony penetrated into the soul and worked powerfully upon it. In union with poetry it led the soul to virtue and inspired it with courage. It has been well said that if a Greek youth had by continuous practice become stronger than a bull, more truthful than the Godhead, and wiser than the most learned Egyptian priest, his fellow-citizens would shrug their shoulders at him with contempt if he did not possess what a series of music and gymnastics can alone give, — a sense of gracefulness and proportion.

OSCAR BROWNING.

FICTION AND EDUCATION.

THE numerous works of genius that take the form of Fiction, together with poetry in the more narrow sense,

are undoubtedly an education in themselves. The force, elegance, and affluence of diction in general, the refinements and delicacies of conversational style in particular, the portraying of character, and the depicting of scenery and life, the wise maxims wittily expressed, not to mention the inspiring ideals, cannot go for nothing on the mind of the reader. They are efficacious, however, just in proportion to previous culture; with a vast majority of fiction-readers the effect is barely to be traced; these in their haste extract only the plot, sentiment, and passion, and let all the rest escape them. To gain the full impression of a work of the highest genius demands slow perusal, and a considerable pause before entering on any other.

ALEXANDER BAIN.

CHAIRS OF DIDACTICS.

THE establishment in the great institutions of America and Europe of a chair for the professional education of teachers, marks a new departure in education. Colleges and universities are conservative and exclusive. The professors are absorbed in their subjects, to the exclusion of methods. Thus it results that, as to methods, our public schools are far in advance of our colleges. In this case the reform must come from within. The maintenance of a chair of didactics is destined to revolutionize college methods.* Such students as elect teaching will go out trained for their work, and prepared to fill the best positions. While normal departments have necessarily and always proved failures, the plan now pursued in the universities of Michigan, Iowa,

Missouri, and other states promises to be eminently successful. Teaching is made to rank with theology, law, and medicine. College graduates should no more undertake to teach without special preparation, than to practise law or medicine without special preparation. Teaching is an art to be learned. The recognition of these facts by our higher institutions marks an immense advance.

J. BALDWIN.

FOR TWO WORLDS.

IN some allotment of the wide domain of education, in its large and comprehensive sense, embracing the culture of the whole being, and of every human being for two worlds, we can find objects and room enough for any sacrifice of time, money, and labor we may have to bestow in its behalf. Ever since the Great Teacher condescended to dwell among men, the progress of this cause has been upward and onward, and its final triumph has been longed for and prayed for, and believed in by every lover of his race. And although there is much that is dark and despairing in the past and present condition of society, yet when we study the nature of education, and the necessity and capabilities of improvement all around us, with the sure word of prophecy in our hands, and with the evidence of what has already been accomplished, the future rises bright and glorious before us, and on its forehead is the morning star, the herald of a better day than has yet dawned upon our world. In this sublime possibility, nay, in the sure word of God, let us in our hours of doubt and despondency, reassure our hope, strengthen our faith, and con-

firm the unconquerable will. The cause of education cannot fail, unless all the laws which have heretofore governed the progress of society shall cease to operate, and Christianity shall prove to be a fable, and liberty a dream.

HENRY BARNARD.

PROPER TEXT-BOOKS.

GOOD books are an essential aid to good teaching. The proper kind of books for class exercises are those which contain the objects of study without the author's explanation of the thoughts ; such as books of carefully selected sentences, and carefully written narratives and descriptions, to be used with the objects in teaching beginners to read ; carefully selected and carefully written books to be used in teaching how to read an author ; books of problems to be solved, of sentences to be translated and analyzed, carefully selected and graded ; books of topics to direct the learner in his study of objects and in his experiments ; books containing historical documents and records for the study of the past ; and choice books on the various subjects of study, in which the best thoughts of the writer have been crystallized, showing what others have observed, imagined, thought, and done, which are to be read for the thoughts of the writer.

ALBERT G. BOYDEN.

IT is only by infusing great principles into the common mind that revolutions in human society are brought about.

GEORGE BANCROFT.

SLOWLY RIPENED FRUIT.

WHERE a permanent reform appears to have been instantaneously effected, it will be found that the happy result was but the sudden plucking of fruit which had slowly ripened. Successful revolutions proceed like all other formative processes from inward germs. The institutions of a people are always the reflection of its heart and its intelligence; and in proportion as these are purified and enlightened, must its public life manifest the dominion of universal reason. The subtle and irresistible movement of mind, silently but thoroughly correcting opinion and changing society, brings liberty both to the soul and to the world. All the despotisms on earth cannot stay its coming. Every fallacy that man discards is an emancipation; every superstition that is thrown by is a redeeming from captivity.

GEORGE BANCROFT.

OF PHILOSOPHY.

IF philosophy does nothing more for the student than to teach him to face the profound questions of life with composure, patience, and respect, believing that there is an infinite choice between conclusions, that all inquiry tends to the light, and that there is a safe path toward that light, it has given an intellectual and moral footing far beyond either dogmatic belief or despairing unbelief. At all events, he will escape mistaking flat and superficial statements for complete and final truths. It is worth as much to us to be brought face to face with things we cannot measure, but must in some way meet,

as to be taught the simplest and clearest facts in knowledge. Conventional minds may run the circuit of life under conventional morality, regarded as a sort of superficial deposit in race development; yet in the progress of centuries this conventional morality will show itself amenable to the silent explorations of philosophy, and to those patient minds that are busy therein.

JOHN BASCOM.

KNOWLEDGE FOR PAINS.

THE knowledge of languages, sciences, histories, etc., is not innate to us; it does not of itself spring in our minds; it is not any ways incident by chance, or infused by grace (except rarely by miracle); common observation doth not produce it; it cannot be purchased at any rate, except by that for which, it was said of old, the gods sell all things, that is, for pains; without which the best wit and the greatest capacity may not render a man learned, as the best soil will not yield good fruit or grain if they be not planted nor sown therein.

ISAAC BARROW.

INDIGESTIBLE KNOWLEDGE.

IT is not worth while to discuss whether a method ought to be easy or hard. But we should even go on to say that it is the duty of a teacher not to rest as long as any difficulty exists which by any change of method can be removed. Involuntary learning is of as little use to the mind as involuntary exercise to the body.

Now it is certain that a large proportion of boys dislike the work which they have to do. Some like it;

some are indifferent ; a great many simply hate it. We maintain that an educator of boys has no business to be satisfied as long as this is the case. A very few may dislike all intellectual labor, just as a very few men dislike it ; but these cases are as rare with boys as with men. The great mass of human beings, whether young or old, have appetites for mental food of some kind, and the reason that so many turn away from it is, that what is given them is not what they can digest. There is a sort of incongruity, which falls little short of injustice, in punishing a boy for being idle, when we know that the work which the system of his school exacts is as cramping and distorting to his mind as an ill-fitting boot to the foot. No one would claim indeed that every pupil shall have his tastes suited with minute accuracy ; and the energy of a boy, if he is in good health, and otherwise happy, will carry him through minor difficulties. But no young boy since the world began has liked a Latin syntax, or a "formation of tenses," or felt anything in them for his mind to fasten upon and care for. Consider the case of a stupid boy, or an unclassical boy, at school, and the load of repulsive labor which we lay upon him. For many hours every day we expect him to devote himself, without hope of distinction or reward, to a subject which he dislikes and fears. He has no interest in it ; he has no expectation of being the better for it ; he never does well ; he rarely escapes doing ill. He is sometimes treated with strictness for faults to which the successful among his neighbors have no temptation ; and, when he is not visited with punishment, he at least is often regarded with contempt. He may be full of lively sympathies, eager after things that interest him,

willing even to sacrifice something for the sake of becoming wiser ; but all that he gets in the way of intellectual education is a closer familiarity with a jargon, the existence of which in the world seems to him to controvert the Argument from Design, and the chance scraps of historical and literary knowledge which fall from the lips of his routine-bound master. If only it could be regarded as an established truth that the office of a teacher is, more than anything else, to educate his pupils ; to cause their minds to grow and work, rather than simply to induce them to receive ; to look to labor rather than to weigh specific results ; to make sure that at the end of a school-half that each one of those entrusted to him has had something to interest him, quicken him, cause him to believe in knowledge, rather than simply to repeat certain pages of a book without a mistake, — then we might begin to fancy the golden time was near at hand, when boys will come up to their lessons, as they surely ought, with as little hesitation and repugnance as that with which a man sits down to his work.

E. E. BOWEN.

AN education in submission is as essential a preparation for going out into the world, as an education in a sound bodily regimen.

ALEXANDER BAIN.

THE KINDERGARTEN.

THE movement plays and exercises of the child-garden supply this demand for the education of free activity of the body, because they gratify the instinct of move-

ment by a rythmical direction of it. In antiquity, long prior to Greek civilization, men practised games that developed and improved the body, probably without comprehending their full import. We find them at the present day among most savages. The sportive contests of antiquity, certainly those of the Greeks; the tournaments of the Middle Ages; above all, the modern gymnasium, has given to this primitive instinct of motion a particular scope; and it has become, among practical people, a reflective act, having aim and object beyond mere bodily development. Doubtless the first condition of all activity, all labor, and production is the education of the limbs and the organs, which are the instruments of the mind. The shortcoming and failure of this education is proved by the feeble, unformed, and crippled bodies which are found so frequently among us, insufficient instruments for work. Masses of men have received no physical education, or been perverted by that which they have received. An immense amount of force is lost to society by this failure of bodies at once strong and healthy, handsome and dexterous.

Who will say then, that the movement plays of the child-garden are not a serious part of the education of the human being?

BARONESS MARENHOLTZ BULOW.

CHILDREN AND NATURE.

You should attend to nature in your children far more than to art. The elegant manners and usages of the world are for the most part unnatural. These come of themselves in later years. Treat children like children,

that they may remain the longer uncorrupted. A boy whose acutest faculties are his senses, and who has no perception of anything abstract, must first of all be made acquainted with the world as it presents itself to the senses. Let this be shown him in nature itself, or where this is impossible, in faithful drawings or models. Thereby can he, even in play, learn how the various objects are to be named. Comenius alone has pointed the right road in this matter. By all means reduce the wretched exercises of the memory.

J. B. BASEDOW.

THE true victories, the only ones which we need never lament, are those won over the dominion of ignorance.

The employment most honorable, and most profitable to the people, is to labor for the diffusion and extension of the ideas of men.

NAPOLEON BONAPARTE.

THE ENGLISH LANGUAGE AND LITERATURE.

IF the extent and necessity of actual use be taken as a measure of the importance of any study, we must agree that the study of the English language and literature easily ranks first in all educational work. Expression, both oral and written, forms a large part of the daily experience of every human being. If it be urged that it will take care of itself from imitation of others, it may be answered that such imitation is one of the very things that most hinder the use of good language in the community, and that the same reasoning would

apply to most of the work done in our schools. I claim that from the primary school to the close of the college course, the study of the English language and its literature demands at least as much time and attention as that of any other subject or any other language whatever.

EUGENE BOUTON.

THE DIGNITY OF HISTORY.

IT is because God is visible in History that its office is the noblest except that of the poet. The poet is at once the interpreter and the favorite of Heaven. He catches the first beam of light that flows from its uncreated source. He repeats the message of the Infinite, without always being able to analyze it, and often without knowing how he received it, or why he was selected for its utterance. To him, and to him alone, history yields in dignity; for she not only watches the great encounters of life, but recalls what has vanished, and partaking of a bliss like that of creating, restores it to animated being. The mineralogist takes special delight in contemplating the process of crystallization, as though he had caught nature at her work as a geometrician; giving herself up to be gazed at without concealment, such as she appears in the very moment of exertion. But history, as she reclines in the lap of eternity, sees the mind of humanity itself engaged in formative efforts, constructing sciences, promulgating laws, organizing commonwealths, and displaying its energies in the visible movement of its intelligence. Of all pursuits that require analysis, history, therefore, stands first. It is equal to philosophy; for as certainly as the actual

bodies forth the ideal, so certainly does history contain philosophy. It is grander than the natural sciences; for its study is man, the last work of creation, and the most perfect in its relations with the Infinite.

GEORGE BANCROFT.

SINGLE-STRINGED METHODS.

As the man who attempts to run upon one leg has poor speed and quick exhaustion, so do all the single-stringed methods of education produce exhaustion, fatigue, and failure. But when the soul is uplifted and inspired by the love of the living teacher and the ravishing power of song, and when these exalted sentiments are consolidated in our bone and muscle by industrial action at the time, we develop a noble and enduring manhood for time and eternity. It is the only manhood on which a republican government can stand, and this morally industrial education is the only possible measure which can relieve us from the dangerous classes of criminals, from the threatening army of tramps, and from the convulsions, mobs, and anarchy which are coming upon us, when millions of unskilled and poorly educated workmen living near the precipice of famine are liable to be tumbled over its edge by any sudden tilting of the balance of trade, or the fluctuations of markets, even if the curse of monopoly and speculation were removed.

J. R. BUCHANAN.

OF LEARNING.

It were too long to go over the particular remedies which learning doth minister to all the diseases of the mind, sometimes purging the ill-humors, sometimes

opening the obstructions, sometimes helping the digestion, sometimes increasing appetite, sometimes healing the wounds and exulcerations thereof, and the like ; and therefore I will conclude with the chief reason of all, which is, that it disposeth the constitution of the mind not to be fixed or settled in the defects thereof, but still to be capable and susceptible of reformation. For the unlearned man knows not what it is to descend into himself, or to call himself to account ; nor the pleasure of that most pleasant life, which consists in our daily feeling ourselves to become better. The good parts he hath he will learn to show to the full, and use them dexterously, but not much to increase them ; the faults he hath, he will learn how to hide and color them, but not much to amend them ; like an ill mower, that mows on still and never whets his scythe. Whereas, with the learned man it fares otherwise, that he doth ever intermix the correction and amendment of his mind with the use and employment thereof.

FRANCIS BACON.

IN thine own circumference, as in that of the earth, let the rational horizon be larger than the sensible, and the circle of reason than of sense ; let the divine part be upward, and the region of beast below ; otherwise it is but to live invertedly, and with thy head unto the heels of thy antipodes.

SIR THOMAS BROWNE.

DEVELOPMENT OF INDIVIDUALITY.

THE teacher is to develop individuality, not to absorb it. She should teach pupils to do, not what she wills, because she wills it, but what is right, because it is

right. The moment Miss Duzenberry leaves her room, the pupils are in an uproar, showing by their extravagant misbehavior how great was the will-pressure upon them, and how lamentable a reaction is sure to follow when the pressure is removed. Besides, think what a strain it puts upon these little minds and bodies. Our whole system of primary instruction is barbarous. But when to the crowded seats, bad ventilation, infectious atmosphere, long hours, and unnatural discipline, you add a constant nervous excitement, you have every requisite for fitting children for mad-houses or for coffins.

C. W. BARDEEN.

SELF, NOT ANCESTORS.

FEEL something of thyself in the noble acts of thy ancestors, and find in thy own genius that of thy predecessor. Rest not under the expired merits of others; shine by those of thine own. Flame not like the central fire, which enlighteneth no eyes, which no man seeth, and most men think there is no such thing to be seen. Add one ray unto the common lustre; add not only to the number, but the note, of thy generation; and prove not a cloud, but an asterisk, in thy region.

SIR THOMAS BROWNE.

IN truth, though a man be neither mechanic or peasant, but only one having a pot to boil, he is sure to learn from science lessons which will enable him to cook his morsel better, save his fuel, and both vary his dish and improve it.

LORD BROUGHAM.

IDEAL SCHOOL OFFICERS.

WE cannot expect that a race of educational experts will suddenly appear to manage the public interests of the school, any more than we can expect a race of statesmen to grow up from the seed of dragon's teeth sown in political fields for the last quarter of a century. We can ask that the best men of the community, its wise men, its conservative men, its learned men, shall stand at the head of educational concerns. School officers should be broad in view, liberal in opinion, possessed of good common sense, and know the difference between a good school and a poor one, between cheapness and fitness, between a wise economy and disastrous ruin. Such men need not necessarily know Latin or Greek, may have never seen the inner walls of a college, or have borne the honorable titles of Esquire, Reverend, or Honorable.

THOMAS W. BICKNELL.

DWARFED FACULTIES.

A LARGE portion of my own life has been devoted to the teaching of physics. During all this time it has been manifest to me that my classes have come to this part of their course totally unpractised how to observe. And it has seemed to me that their perceptive faculties have been actually dwarfed by the forced inaction to which they have been constrained during the period most favorable to their cultivation. Thus it has happened that the brief time which can only be given to these subjects in the college course has been exhausted in the attempt to convey such elementary notions as

should have been familiar long before. And the same observation has been made to me by other gentlemen, who are among the most skilled instructors in science that I have ever known. If, then, I am asked if I would displace these subjects from the position they occupy in the course of collegiate instruction, I would answer, by no means. What I would desire would be to secure such an early culture, and such an acquaintance with the elements of science, that it might be permitted us to give, at this more advanced period, such larger views and such profounder applications of the principles of these sciences, that the student might feel in the end that he had acquired some mastery over them, and might be qualified to prosecute inquiry independently and profitably after he had mastered them.

F. A. P. BARNARD.

ALL COMPLETE.

WHEN a man is developed up to his true nature, the reason, every part of it, must be brought to its full; the moral sentiments, each of them, must be brought to their full; the social faculties must be brought to their full; every part of the mind must be brought to its full; and each must learn its role.

H. W. BEECHER.

HOW I WAS EDUCATED.

I HAVE thus briefly stated all that occurs to me as likely to be of use to others, in regard to the process of my education. As I look back upon the history, in addition to the suggestions that might naturally occur,

two or three impressions remain profoundly fixed in my mind. One is, that with whatever opportunities, all higher education is essentially self-education. Teachers do not make the scholar. The impulse comes chiefly from within ; and the student becomes the scholar when he ceases to confine himself to prescribed tasks or previous limits, and spontaneously reaches out beyond. Another strong impression made upon me is, that the best preliminary preparation for even the studies of a specialist is a liberal education. Such an education connects him with the wide circle of thought and knowledge, and saves him from narrowness and hobbies. The man who can do one thing best is usually a man who could have done other things well. It has also been my observation that such a liberal education as will fit the man in due time to grapple most effectually with any specialty, consists more in training than in acquisition. The man that is thoroughly master of his own powers will master any sphere or theme to which he is called.

S. C. BARTLETT.

EXAMPLE yields the most compendious instruction, together with the most efficacious incitement to action.

ISAAC BARROW.

TEACHING, A FINE ART.

I HAVE done my work inspired with the idea that teaching is a beautiful art and a noble vocation. To me the teacher has seemed to be an artist shaping the minds of his pupils into higher forms, and through them moulding the generation in which they live. The true

teacher has seemed to be painting pictures on the canvas of mind that shall last through the generations, and fade not in eternity. My own work was largely inspired by the spirit of the sentiment so felicitously phrased by an English writer, "that divine and beautiful thing called teaching."

EDWARD BROOKS.

IT is the man who takes in who can give out. The man who does not do the one soon takes to spinning his own fancies out of his interior, like a spider, and he snares himself at last, as well as his victims.

DR. JOHN BROWN.

INSPIRE A LOVE OF KNOWLEDGE.

THIS is indeed something worth being enthusiastic for. To convince boys that intellectual growth is noble, and intellectual labor happy, that they are travelling on no purposeless errand, mounting higher every step of the way, and may as truly enjoy the toil that lifts them above their former selves, as they enjoy a race or a climb; to help the culture of their minds by every faculty of moral force, of physical vigor, of memory, of fancy, of humor, of pathos, of banter, that we have ourselves, and lead them to trust in knowledge, to hope for it, to cherish it; this, succeed as it may here and fail there, quickened as it may be by health and sympathy, or deadened by fatigue or disappointment, is a work which has in it most of the elements which life needs to give it zest. It is not to be done by putting books before boys, and hearing them so much at a time;

or by offering prizes and punishments ; or by assuring them that every English gentleman knows Horace. It is by making it certain to the understanding of every one that we think the knowledge worth having ourselves, and mean in every possible way, by versatile oral teaching, by patient guidance, by tone and manner and look, by anger and pity, by determination even to amuse, by frank allowance for dulness and even for indolence, to help them to attain a little of what gives us such pleasure. A man or an older pupil can find this help in books ; a young boy needs it from the words and gestures of a teacher. There is no fear of loss of dignity ; the work of teaching will be respected when the things that are taught begin to deserve respect.

Above all, the work must be easy. Few boys are ever losers from finding their task too simple, for they can always aspire to learning what is harder ; many have had their school career ruined from being set to attack what was too hard. It may be said, perhaps, that what was easy enough for past generations ought to be easy enough for the present. Those who urge this view, may simply be asked whether they are satisfied with the working of the classical education that exists. Allowing that the very best scholars can assimilate anything whatever, and that with the very worst it is next to useless to try at all, is it true to say that the average boys have a fair chance of making the most of their powers ? If not, there are two resources before the teacher. He can, as is elsewhere pointed out, vary and enlarge the basis of education ; he can also teach classics so as to include more that is of rational interest, and less that is of pedantic routine.

THE TEACHER TAUGHT.

O'ER wayward children wouldst thou hold firm rule,
And sun thee in the light of happy faces ;
Love, Hope, and Patience, — these must be the graces,
And in thine own heart let them first *keep school* !
For, as old Atlas on his broad neck places
Heaven's starry globe, and there sustains it, so
Do these upbear the little world below
Of education — Patience, Hope, and Love !
Methinks I see them grouped in seemly show, —
The straitened arms upraised, — the palms aslope, —
And robes that touching, as adown they flow,
Distinctly blend, like snow embossed in snow.
O part them never ! if Hope prostrate lie,
Love, too, will sink and die.
But Love is subtle ; and will proof derive,
From her own life, that Hope is still alive,
And bending o'er, with soul-transfusing eyes,
And the soft murmurs of the mother dove,
Woos back the fleeting spirit, and half supplies.
Thus Love repays to Hope what Hope first gave to
Love !
Yet haply there will come a weary day,
When, overtasked, at length,
Both Love and Hope beneath the load give way,
Then, with a statue's smile, a statue's strength,
Stands the mute sister, Patience, — nothing loath ;
And, both supporting, does the work of both.

OBSERVE with the utmost attention all the operations of your own mind, the nature of your passions, and the various motives that determine your will, and you may, in a great degree, know all mankind.

LORD CHESTERFIELD.

MORAL LESSONS INCIDENTALLY.

To the schoolroom the teacher should bring the personal influence, the inspiration, so to speak, of a character in which the gentle as well as the heroic virtues are conspicuous. And here every opportunity should be embraced to impress, by example, by precept, by illustration, upon the minds of the scholars the paramount importance of the cultivation of the moral faculties co-equal with the intellectual. I would not have this sentiment acquired by committing to memory printed answers to printed questions, neither would I encourage a great amount of preaching by the teacher ; but I would have a constant sifting-in, a mingling of the moral with the mental food, as salt is mingled with the physical.

Scarcely a lesson need occur from which some moral instruction may not be drawn. For example : in the study of geography and history, the benefits of peace, of brotherhood, and of unselfish international exchange ; in zoölogy, kindness to animals ; in natural philosophy and chemistry, the wonderful harmony and fitness of things, one toward another ; in mathematics, the exactness of proper methods in producing certain desirable results, — may all be made by skilful, conscientious handling, to lead to a perception of the excellence of right-doing in the conduct of life.

MRS. ELIZABETH B. CHACE.

APPLICATION.

FOR stern, close thought, the mind must be schooled by habits of close application, and this is more rare than one would imagine ; for, notwithstanding what is called application in our public schools, the *mind* is so little employed in it, that few men ever know how to isolate themselves from present objects enough to think really, and the habit is easily lost.

CAROLINE F. CORNWALLIS.

PRODIGIES.

I GRANT that the education which cultivates only the memory may make prodigies, and that it has done so ; but these prodigies last only during the time of infancy. . . . He who knows only by heart, knows nothing. . . . He who has not learned to reflect has not been instructed, or, what is still worse, has been poorly instructed.

CONDILLAC.

THINGS, NOT THEIR SHADOWS.

IN the place of dead books, why should we not open the living book of nature ? . . . To instruct the young is not to beat into them by repetition a mass of words, phrases, sentences, and opinions gathered out of authors ; but it is to open their understanding through things. . . . The foundation of all knowledge consists in correctly representing sensible objects to our senses, so that they can be comprehended with facility. I hold that this is the basis of all our other activities, since we could neither act nor speak wisely unless we adequately comprehended

what we were to do and say. Now it is certain that there is nothing in the understanding that was not first in the senses, and, consequently, it is to lay the foundation of all wisdom, of all eloquence, and of all good and prudent conduct, carefully to train the senses to note with accuracy the differences between natural objects; and as this point, important as it is, is ordinarily neglected in the schools of to-day, and as objects are proposed to scholars that they do not understand because they have not been properly represented to their senses or to their imagination, it is for this reason, on the one hand, that the toil of teaching, and on the other, that the pain of learning, have become so burdensome and so unfruitful. . . . We must offer to the young, not the shadows of things, but the things themselves, which impress the senses and the imagination. Instruction should commence with a real observation of things, and not with a verbal description of them.

JOHN AMOS COMENIUS.

INTELLECTUAL FORCE.

THE elevation of man is to be sought, or rather consists, first in force of thought exerted for the acquisition of truth; thought is the fundamental distinction of mind, and the great work of life. All that a man does outwardly is but the expression and completion of his inward thought. To work effectually, he must think clearly; to act nobly, he must think nobly. Intellectual force is a principal element of the soul's life, and should be proposed by every man as the principal end of his being.

W. E. CHANNING.

THEORY AND PRACTICE.

I, FOR one, esteem practice. I trace all real knowledge to experience. I care for no theories, no systems, no generalizations, which do not spring from life and return to it again. I feel perhaps undue contempt for the vague abstractions we often listen to, idle figments of an idle brain, speculations with no basis of sharp observation beneath them. Yet we are in danger of going too far in this direction, and of undervaluing theory in its proper limits. People often eulogize *Practice* when they only mean *Routine*, boasting themselves as practical teachers, intending thereby that they only do what always has been done, and do not mean to do any better to-morrow than they did yesterday. Practice and theory must go together. Theory, without practice to test it, to verify it, to correct it, is idle speculation; but practice, without theory to animate it, is mere mechanism. In every art and business theory is the soul and practice the body. The soul without a body in which to dwell is indeed only a ghost, but the body without a soul is only a corpse. I pass a sign often on which the artisan has painted "John Smith" (or whatever the name may be), "Practical Plumber." I should not wish to employ him. When the water-works in my house get out of order, I want a theoretical plumber as well as one who is practical. I want a man who understands the theory of hydrostatic pressure; who knows the laws giving resisting qualities to lead, iron, zinc, and copper, — who can so arrange and plan beforehand the order of pipes that he shall accomplish the results aimed at with the smallest amount of piping, the least expos-

ure to frost, the least danger of leakage or breakage ; and this, a merely practical man, a man of routine, cannot do. The merest artisan needs to theorize, *i.e.*, to think, — to think beforehand, to foresee ; and that must be done by the aid of general principles, by the knowledge of laws. An intelligent man, a man of general culture, whose mind has been quickened with ideas, will often be able to show a mechanic how to do his own work. When we are young, we have a superstitious faith in the knowledge each man is supposed to have of his own business. We outgrow this after a while. If you wish anything done about your house, send for a mechanic ; but overlook him, do not leave him to himself. You will presently find that you can suggest something to him in his own work, which he never thought of. All success depends on practice, but all improvement on theory. Let neither despise the other.

JAMES FREEMAN CLARKE.

THE great result of schooling is a mind with just vision to discern, with free force to do ; the grand schoolmaster is Practice.

THOMAS CARLYLE.

MORAL TEACHINGS OF HISTORY.

BUT history should be studied with a moral purpose as well as an intellectual. No one who is not more or less acquainted with his country can feel an enlightened interest in its fame and its privileges, can judge of those discussions of vital moment which are unceasingly on the lips of a free people, or can understand its current

literature. And he is excluded from all those pleasant associations which almost every spot of its soil suggests to him who has traced its growth from infancy to manhood. But beyond contributing in an indirect way to raise the whole tone and temper of those who read it, history stands forth with claims to be regarded as a great moral teacher. It exhibits the punishment of crime, it may be after temporary success; and, where crime seems to prosper continuously, the miseries which follow in its train. It draws lessons of personal improvement from the characters who appear upon its stage, whether good or bad; from the devotion of the patriot, the fortitude of the martyr, the integrity of the honorable, and the charity of the pious, not less than from the craft and falsehood of the intriguer, the corruptness of the unjust, and the unscrupulousness of the selfish. The reader should have his own character heightened by the attraction of the virtuous and by the repulsion of the vicious. Thus it is that this subject occupies no mean place amongst the instruments for forming the moral judgment of youth.

JAMES CURRIE.

DILIGENCE.

THERE is an advice I must give you—the summary of all advices, and doubtless you have heard it a thousand times; but you must hear it once more, for it is most intensely true, whether you believe it or not. That above all things the interest of your whole life depends upon your being diligent and honest, now while it is called to-day, in this place, where you have come

to get your education ! Diligence ! that includes in it all virtues that a student can have ; I include in it all those qualities of conduct and attention that lead to the acquirement of real instruction in such a place. This is the seed-time of life — and as you sow, so will you reap ; this the fluid condition of your mind, and as it hardens into habits, so will it retain the consistency of rock and of iron to the end. By diligence I mean honesty, not only as to time, but as to your knowledge. Grant a thing as known only when it is clearly yours, and is transparent to you, so that you can survey it on all sides with intelligence. Don't flourish about with what you only know the outside of, and don't cram with undigested fragments for examinations. Be modest, be humble, be assiduous, and as early as you can find out what kind of work you individually can do in this universe, and qualify yourself for doing it.

THOMAS CARLYLE.

IT is attention which fixes objects in the memory. There is no surer mark of a mean and meagre intellect in the world than inattention. All that is worth the trouble of doing at all, deserves to be done well, and nothing can be well done without attention.

LORD CHESTERFIELD.

MARCUS AURELIUS.

THE wisest of the Roman emperors, the author of the book entitled *To Myself*, better known as *Meditations*, Marcus Aurelius, deserves mention in the history of pedagogy. He is perhaps the most perfect representa-

tive of Stoic morality, which is itself the highest expression of ancient morality. He is the most finished type of what can be effected in the way of soul-culture by the influence of home training and the personal effort of the conscience. His teacher of rhetoric was the celebrated Fronto, of whose character we may judge from this one characteristic: "I toiled hard yesterday," he wrote to his pupil; "I composed a few figures of speech, with which I am pleased." On the other hand, Marcus Aurelius found examples for imitation in his own family. "My uncle," he says, reverently, "taught me patience. From my father I inherited modesty. To my mother I owe my feelings of piety." Notwithstanding the modesty that led him to attribute to others the whole of his moral worth, it is especially to himself, to a persistent effort of his own will, and to a ceaseless examination of his own conscience, that he is indebted for becoming the most virtuous of men, and the wisest and purest, next to Socrates, of the moralists of antiquity. His *Meditations* show us in action that self-education which in our time has suggested such beautiful reflections to Channing.

GABRIEL COMPAVRÉ.

EXAMINING BOARDS.

It requires men of great and versatile experience to be able to ask such suggestive questions as can fully test the general knowledge and capabilities of a teacher. It is very easy to give simple puzzles and test a person's knowledge on particular points; but examining boards have, or should have, a far more difficult duty

to perform, and hence should be composed of professional teachers only. Who would think of building a ship, and asking a doctor to examine it to see if it was seaworthy? But you can build your schools, send your children there, and then get men who have not been in school in forty years, and know nothing of modern methods and *régime*, to go and examine the teachers, simply because some of these men once attended a college. The absurdity of this foolish system is only too evident. The examining board should consist of teachers of the highest ability and success.

J. W. CORTHELL.

THE COUNTRY'S REQUIREMENTS.

OUR country has not given us birth, or educated us under her law, as if she expected no succor from us; or that, seeking to administer to our convenience only, she might afford a safe retreat for the indulgence of our ease, or a peaceful asylum for our indolence; but that she might hold in pledge the various and most exalted powers of our mind, our genius, and our judgment for her own benefit, and that she might leave for our private use such portions only as might be spared for that purpose.

CICERO.

HOW I LEARNED ORATORY.

I OWE my own success in life chiefly to one circumstance, that, at the age of twenty-seven, I commenced, and continued for years, the process of daily reading and speaking upon the contents of some historical or scientific book. These off-hand efforts were made

sometimes in a cornfield, at others in the forest, and not unfrequently in some distant barn, with the horse and ox for my auditors. It is to this early practice of the art of all arts that I am indebted for the primary and leading impulses that stimulated me onward and have shaped and moulded my whole subsequent destiny.

HENRY CLAY.

ALL knowledge which is not followed by action is unprofitable and imperfect, like a beginning without an end, or a foundation without a superstructure.

CICERO.

ESSENTIALS FIRST.

THE principle of dealing with essentials mainly should prevail in all the work of education. We have too much to do to spend time fooling over complicated arithmetical puzzles which abound in some books—questions which no one should undertake to solve till well versed in algebra and geometry. At the proper stage of education, such puzzles, which are a discouragement to the young scholar, because he thinks them essential to the subject, will be solved in the natural progress of his work. They are an annoyance and discouragement simply because they are introduced before their time,—before the study of the principles on which their solution depends.

PAUL A. CHADBOURNE.

OF BOOKS.

It is chiefly through books that we enjoy intercourse with superior minds; and these invaluable means of communication are in the reach of all. In the best

books, great men talk to us, give us their most precious thoughts, and pour their souls into ours. God be thanked for books ! They are the voices of the distant and the dead, and make us heirs of the spiritual life of past ages. Books are the true levellers. They give to all who will faithfully use them the society, the spiritual presence of the best and greatest of our race. No matter how poor I am ; no matter though the prosperous of my own time will not enter my obscure dwelling ; if the sacred writers will enter and take up their abode under my roof, if Milton will cross my threshold to sing to me of Paradise, and Shakespeare to open to me the worlds of imagination and the workings of the human heart, and Franklin to enrich me with his practical wisdom, I shall not pine for want of intellectual companionship ; and I may become a cultivated man though excluded from what is called the best society in the place where I live.

W. E. CHANNING.

It depends on what we read, after all manner of professors have done their best for us. The true universality of these days is a collection of books.

THOMAS CARLYLE.

THE PROBLEM.

To cause gross natures to pass from the life of the senses to the intellectual life ; to make study agreeable to the end that the higher pleasures of the spirit may struggle successfully against the appetites for material pleasures ; to put the book in the place of the wine

bottle ; to substitute the library for the saloon ; in a word, to replace sensation by idea ! — such is the fundamental problem of popular education.

CONDORCET.

GRECIAN PEDAGOGY.

UPON that privileged soil of Greece, in that brilliant Athens abounding in artists, poets, historians, and philosophers, in that rude Sparta celebrated for its discipline and manly virtues, education was rather the spontaneous fruit of nature, the natural product of diverse manners, characters, and races, than the premeditated result of a reflective movement of the human will. Greece, however, had its pedagogy, because it had its legislators and its philosophers, the first directing education in its practical details, the second making theoretical inquiries into the essential principles underlying the development of the human soul. In respect of education, as of everything else, the higher spiritual life of modern nations has been developed under the influence of Grecian antiquity.

GABRIEL COMPAYRÉ.

THE NEW CIVILIZATION.

THE new civilization, which moves on through the development of the forces of nature, recognizes the truth that life is more than meat, and the body more than raiment. In no other age, in no other country, has man, as an intellectual and moral being, been held at so high a value as at the present time and in this country. It is this recognition of the worth of human beings that arches all the future with radiant light.

Men are no longer mere food for powder, — the many created to do the bidding of the few. The new civilization not only recognizes the right of every human being to make the most of himself, but regards it the duty of society to aid him. In no other country is there such recognition of this obligation as in this land of ours. Here the common school, the high school, the college, the university, the liberal arts, special instruction, public libraries free to rich and poor, are the institutions that give regal power and lease of life.

CHARLES CARLETON COFFIN.

VALUE OF KNOWLEDGE.

WHAT, under heaven, can there be more worthy of our most strenuous attention, than knowledge; what more worthy of our highest admiration? Is calmness or serenity of mind the object of our wishes? What so likely to secure it as the pursuit of that knowledge which enables us to enjoy life in the happiest manner? Or do we esteem above all things unsullied integrity and spotless virtue? Either the study and acquisition of wisdom point out the path, or there is none, to the attainment of these distinctions.

CICERO.

OBJECT-TEACHING.

OBJECTIVE instruction can most successfully open the portals of science and guide the early steps of those who enter therein. It will prepare pupils for learning readily from all sources, and lead them to seek books from a desire to know what others have discovered in nature. By it the elementary steps in knowledge can

be taken most nearly as the child would learn the same subject from objects with only nature for its guide. It adapts the subject and the manner of instruction to the mental conditions of pupils in all their varying aspects. No text-book can successfully meet these different conditions; only the living teacher can so present the matter of instruction as to harmonize in time and manner with their needs.

In the various stages of school instruction, whatever may be the subject, let the teacher prepare the pupils for studying it by introducing it orally, and whenever necessary, illustrating its chief points so that these shall be clearly understood by them; then assign the same subject as a lesson to be studied in the text-book, and afterwards recited by them and further explained by the teacher. By this means habits of giving more attention to facts and ideas, than to the mere forms of language, will be formed, and the student's progress in knowledge will be thorough, practical, and rapid.

N. A. CALKINS.

IN this impulse to construct and destroy, there is but the effort of the little intelligence to succeed in making or building something for himself; so that instead of opposing the child in this, he should be encouraged and guided.

JOHN AMOS COMENIUS.

THE large place assigned to music by Plato and Aristotle, shows that the culture of the emotions was an important element in Greek education. *Æsthetic* training was not only an end in itself, but was regarded as the basis of moral and religious culture.

GABRIEL COMPAYRÉ.

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SAVE US FROM ROUTINE.

I AM averse to "cut and dry theories" as to the best possible ways of teaching. I would have each teacher observe and reflect for himself; but by all means save us from routine. A teacher needs knowledge of human nature, and he needs freedom of action to avail himself, without reserve, of all the varied resources fitted to awaken attention and stimulate mental activity. . . . To a competent teacher the work never can be uninteresting. Those who wish an easy life would act wisely did they turn in some other direction than the school-room. Those who are willing to give thought, and patience, and strenuous effort to the work of life will find in the schoolroom a most attractive sphere of usefulness. Much is said of the routine of a teacher's life. It is a one-sided view which leads to the remark. In so far as the subjects to be taught are concerned, it is routine, but in no other sense. There is, indeed, endless variety in school life. The unfolding of youthful minds, with the varying phases of curiosity and carelessness, erroneous apprehension, and quick recognition of what is taught, presents an unceasing source of attraction. The early attempts at self-government, with their comical failures and more serious outbreaks, their flow of feeling, now playful, now serious, and again deepening into passion, make a teacher's life one of the most lively. If a dull feeling of sameness creep over our minds, there is something wrong with ourselves in our teaching. With the lofty end the teacher has in view, and the variety of nature presented in a considerable gathering of children, a teacher's work should never seem tame.

HENRY CALDERWOOD.

EXPERIENCE AND OBSERVATION.

THE great sources of wisdom are experience and observation. To open and fix the eyes upon what passes without and within us is the most fruitful study. Books are useful chiefly as they help us to interpret what we see and experience. When they absorb men as they sometimes do, and turn them from the observation of nature and life, they generate a learned folly for which the plain sense of the illiterate could not be exchanged but at great loss.

W. E. CHANNING.

ACTIVITY NECESSARY.

ESPECIALLY must the intelligence be nourished, even as the body is nourished. We must present to it knowledge, which is the wholesome aliment of spirit, opinions and errors being aliment that is poisonous. It is also necessary that the intelligence be active, for the thought remains imbecile as long as, passive rather than active, it moves at random.

CONDILLAC.

DANGERS OF THE ELECTIVE SYSTEM.

THE election by the student of his entire course of study according to preference or caprice, coupled with so much or so little attendance on instruction as may seem to him reasonable, encourages the impression that his opinion is valuable on all subjects; that he is fully competent to deal with all subjects, certainly to establish relative values. Accordingly, he attacks and settles in a few moments by some new and brilliant solution questions of college management on which old men have

studied with anxiety for a lifetime. He issues in his weekly or bi-weekly sheets the lucubrations of those few moments charged with conceit, if not with rudeness. While a wise individualism is the proper end of all discipline, it will come as the result of discipline, and not as its origin. Individualism without discipline is the bane of our country. Honor to a constant controlling authority—a subordination of personal caprices and whims, and even of rational desires to the best good of the organism—is the imperative need of this age, and should be a marked feature in the character of a liberally educated man. I do not say that there are not many cases in which it is wise and best for a young man to choose his instruction to a certain extent with reference to his life-work, but even in these cases, other and wiser men ought to select the best means for the end that he proposes for himself. Courses, not studies, should be elective.

FRANKLIN CARTER

WE exhort you, then, not only not to neglect the study of letters, but to devote yourselves to them with all your power.

CHARLEMAGNE.

WHEN you know a thing, to hold that you know it; and when you do not know a thing, to allow that you do not know it; this is knowledge.

CONFUCIUS.

THE STATESMAN'S CARE.

WHILE it may be said that the life of a state and the preservation of its liberties depend upon the courage of the people, it is equally true that a wise administration

of its laws and the maintenance of order and happiness rest upon the virtue and intelligence of its citizens. If this proposition is admitted, then it follows that the education of the people becomes one of the highest duties of the state, and no subject is more worthy the consideration of the enlightened statesman.

N. H. R. DAWSON.

THE TEACHER'S OPPORTUNITY.

EVERY schoolmaster and schoolmistress in the Union may reflect, however humble or secluded be his station, that he has the opportunity of raising his school to an eminence. He may do his part towards elevating the standard of education, and sound a trumpet to the higher institutions to elevate theirs. He may reflect, as he enters the door of his schoolhouse, whether it be in the populous village or on the lonely prairie ; whether on the bleak hillside, or under the shade of the grove ; whether pitched on a mountain, or sprinkled by the surges of the ocean, that its naked walls may be decorated with simple ornaments, attractive to the eye, favorable to taste, and instructive to the mind ; the arrangements may be such as to secure healthful postures and exercise, thorough instruction and necessary variety, well attempered light, and the purest air that heaven affords. It may be the abode of harmony, happiness, and improvement. The best of friendships may be formed there ; and the path which conducts to it, however stony or winding, may be associated in many a useful mind with recollections of childhood, and the loftiest conceptions of science, of man, and his Creator.

TIMOTHY DWIGHT.

THE price of retaining what we know is always to seek to know more. We preserve our learning and mental power only by increasing them.

HENRY DARLING.

DEGRADING THE PUBLIC SCHOOLS.

THERE is a tendency in modern times to separate the æsthetical and moral from other forms of culture in the public schools, for it is said that the State has no right to furnish the children of the State with any training which does not have for its object the ability to live successfully their physical lives. They would limit the culture of the imagination and the taste to those fortunate ones who can secure it for themselves by private means; and the training of the conscience they would leave to home influences and to the teachings of the church. Such sentiments have a tendency to degrade the public schools, and to divert them from pursuing the very ends they were established to attain. . . .

Nothing but a thorough study and understanding of the philosophy of education will ever preserve our schools from that degradation which must come if the refinements and the Christianity of culture are banished from them. Our schools have no meaning except as they are considered to be institutions for the formation of character. The educators of the State and all the citizens should labor together to find a way by which the school authorities may all be provided with skilled agents to assist them in the management of our school affairs.

J. W. DICKINSON.

ORAL INSTRUCTION.

THE true object of oral instruction I conceive to be threefold, — training, knowledge, and expression. It is possible to make either factor too prominent. We may make sharp intellects, that possess little valuable knowledge or power of expression; we may impart knowledge in such a way as to develop in our pupils little power either to think or to express; or we may make fluent talkers and writers, characterized by weakness and ignorance. Neither of these is the highest type of man. Perfection requires power, wisdom, and speech. It is not a sufficient recommendation, then, either of a subject of study or a mode of treatment, that it disciplines the mind. It is not enough that it makes the pupil wise, or that it makes him fluent of speech. The true test of every course of instruction, and for every lesson in the course, — and this is emphatically true of oral instruction, which fashions the mental habits, — is this: does it result in that self-activity of the pupils that gives them additional power to act; does the subject-matter stand in such relation to human interests, and especially to the interests of these human beings, that the resulting knowledge will be of the highest practical value to them; and are they the better prepared to put themselves in communication and sympathy with their fellow-men? Oral instruction that will not bear this test should not be allowed to waste the time of pupils.

LARKIN DUNTON.

It is certain that in the education which was given at Sparta, the prime purpose was to train Spartans.

It is thus that in every state the purpose should be to enkindle the spirit of citizenship.

DUCLOS.

ART STUDY.

WE are often asked what is the best course of instruction in art? Our only reply is, a thorough knowledge of the rules and principles, beginning at the foundation, combined with such practice as will not only give to the scholar skill of hand and accuracy of eye, but also make these rules his own. First, the rules of form must be mastered, then of light and shade, and then of color. Having mastered these first and fundamental principles of art, the scholar is prepared to learn their application in composition and design, from the highest department of art to the lowest, for the same rules are essential to every branch from the highest ideal composition to the simplest design for the artisan. An experienced teacher will soon discover in what branch of art the scholar will most excel, and direct his studies with reference to the talent developed. Success with each one depends no less upon natural ability than upon right instruction.

It is the same with the study of art as with that of mathematics. If the scholar is not well grounded in the first principles of arithmetic, and made familiar with numbers, he can make little or no progress in algebra or geometry; and in the study of mathematics no progress is expected unless the scholar goes on regularly from step to step. When the same importance is attached to method and accuracy in teaching the first

principles of art, we shall have artists who will produce works of intrinsic excellence. Without it, they can never rise above mediocrity either as historical painters or designers.

M. A. DWIGHT.

RECENT HISTORY.

NOT to carry history up to our times would, to-day, be a national crime; we owe it to our heroes, whether they live or sleep in French earth. Not to progress to the present would make all study of the past almost useless. History is to give an ideally practical education for the present and for the future. The weapons of Achilles might be borrowed by any one from the past; but without knowledge of the developments to the present, he would be fighting in the dark with them. Shall it be left to accident or to the care of one individual to make up what is wanting? Experience has taught us how many are able to do so. Why shall the rising generation learn everything, except the foundation on which it stands? Perhaps, because recent history cannot be taught objectively enough. But will it be taught more objectively in the light of faction and a party press? If the teacher has disciplined his mind as in duty bound, objectively to represent the reality of past times, he, foremost among his fellow-citizens, will be qualified for the objective comprehension and representation of modern ideas.

G. DIESTERWEG.

DIFFICULT WORK NEEDED.

MENTAL training is dependent, not only on a right method of activity, but on the degree of it. I am not

sure that serious mistakes are not now made in attempting to make school-work entirely easy as well as absolutely delightful. It may not be wise to compel the pupil to grope in the dark for results that a small amount of well-directed labor would easily produce, nor to add that severity to his labor which will make it a disagreeable task for him to perform, but it must not be forgotten by those who are engaged in training the human mind, that an earnest and prolonged activity is the only price that will purchase a vigorous development. A consciousness of such activity, and of the good results associated with it, is the source of a higher joy than is experienced in mere amusement. As the mind acquires strength only by an exertion of its own power, it must not be relieved from hard and independent labor by any attempt on the part of the teacher to take the burden of work upon himself. He must not attempt to think and speak for his pupils, nor to consider his work is skilfully done, when he has made easy, by explanations, whatever is assigned to be performed.

J. W. DICKINSON.

CONTACT WITH PUPILS.

THE old Socratic method was that the teacher should instruct the pupil everywhere—in the forum, in the market-place, in the shop, and upon the street. I am quite sure that it would be well if this Socratic method was not regarded as obsolete, and if these impressions which are made from time to time in the recitation room, should be deepened by that personal contact which every true instructor may and ought to have with his pupils. It will be a grand thing for the colleges of

this State if we can educate well, not simply a few men in every class, but if we can so order our instruction that the average standard of scholarship in all classes will be elevated ; if the poor scholar shall be taught by some stimulant to do better work and go out from our colleges a more complete and perfectly educated man.

HENRY DARLING.

A HABIT OF WORK.

IN order to give women the habit of work, they must be impressed as girls with the fact that their education is not finished at eighteen, and that their first ball-dress does not possess, any more than a bachelor's degree for young men, the power of giving the finishing touch to their attainments.

DUPANLOUP.

PRACTICAL AND CLASSICAL CULTURE.

WE are indebted to the ancient Greeks as much for what they achieved in education as for what they bequeathed to our language and literature. The close relationship of physical stamina to character, and the necessity of perfecting as far as possible the individual man, as conceived by the Greek mind, is one of the corner-stones of educational science. Their ideas of manhood developed to physical and intellectual perfection were idealized in the gods of Mount Olympus, and those ideals found expression through the plastic arts for the instruction of all mankind. This system of education, so exacting and exclusive, was followed by that of the Romans, which was its counterpart in point of practical every-day value. The Greeks sought a harmo-

nious culture that would make men godlike; the Romans aimed at a severely practical training which would make men of the world, as orators, warriors, and statesmen. I speak particularly of these two systems, as they suggest that conflict between the ideal and the practical which has stamped all educational history since the time of Christ. The claims of both sides have been heard. To develop the individual, and at the same time to fit him to be useful, has been, and must be, the aim of every thoughtful educator.

With so great a contribution to modern education from the Pagan world we can hardly expect to find in the Christian system of the Middle Ages anything more valuable. The dominant type of education was that of the monastery, and it was far more ecclesiastical than practical. The castle and the town provided some instruction, but the humanistic teaching of the schoolmen became the staple. It was the germ of modern classical training. Passing on to the theories of the realists, of whom Comenius was a leader, we find them to be in sharp contrast to what had gone before. The best teaching of to-day obeys many of their rules. To follow the order of nature, to teach one thing at a time, to avoid compulsion, to learn little "by heart," to study things and processes first and then the rule, — these and other principles come to us as a legacy from the sixteenth century.

S. T. DUTTON.

HOMER is the master to whom I am indebted for whatever merit I have, if indeed I have any at all. It is difficult to attain to excellence in taste without a knowledge of the Greek and Latin languages.

DIDEROT.

It is not enough to have a sound mind ; the principal thing is to make a good use of it.

DESCARTES.

THE POSITION OF HONOR.

As so much depends on a right start in school work, too great care cannot be exercised in the selection of teachers for these lower grades. New teachers should never be placed here to experiment ; but successful experience and superior merit should be considered necessary qualifications of a teacher for the lower primaries. Then let the ambition of these teachers be not to take higher-grade classes, but to perfect themselves as primary teachers. There is no more honorable position.

A. W. EDSON.

MAN'S THREE TEACHERS.

It is indeed true that one of the great secrets of the power of education, in its application to large numbers, is, that it is a mutual work. Man has three teachers, — the schoolmaster, himself, his neighbor. The instructions of the first two commence together ; and long after the functions of the schoolmaster have been discharged, the duties of the last two go on together. And what they effect is vastly more important than the work of the teacher, if estimated by the amount of knowledge self-acquired, or caught by the collision or sympathy of other minds, compared with that which is directly imparted by the schoolmaster, in the morning of life. In fact, what we learn at school and in college is but the foundation of the great work of self-instruc-

tion and mutual instruction with which the real education of life begins, when what is commonly called the education is finished. The daily intercourse of cultivated minds; the emulous exertions of the fellow-votaries of knowledge; controversy; the inspiring sympathy of a curious and intelligent public, — unite in putting each individual intellect to the strength of its capacity. A hint, a proposition, an inquiry, proceeding from one mind, awakens new trains of thought in a kindred mind, surveying the subject from other points of view, and with other habits and resources of illustration; and thus truth is constantly multiplied and propagated, by the mutual action and reaction of the thousands engaged in its pursuit. Hence the phenomena of Periclean, Augustan, and Medicean ages, and golden eras of improvement; and hence the education of each individual mind, instead of being merely the addition of one to the well-instructed and well-informed members of the community, is the introduction of another member into the great family of intellects, each of which is a point, not only bright, but radiant, and competent to throw off the beams of light and truth in every direction. Mechanical forces, from the moment they are put in action, by the laws of matter grow fainter and fainter, till they are exhausted. With each new application something of their intensity is consumed. It can only be kept up by a continued or repeated resort to the source of power. Could Archimedes have found his place to stand upon, and a lever with which he could have heaved the earth from its orbit, the utmost he could have effected would have been to make it fall a dead weight into the sun. Not so the intel-

lectual energy. If wisely exerted, its exercise, instead of exhausting, increases its strength ; and not only this, but, as it moves onward, from mind to mind, it awakens each to the same sympathetic, self-propagating action. The circle spreads in every direction. Diversity of language does not check the progress of the great instructor ; for he speaks in other tongues, and gathers new powers from the response of other schools of civilization. The pathless ocean does not impede ; it accelerates his progress. Space imposes no barrier ; time no period, to his efforts ; and ages on ages after the poor clay in which the creative intellect was enshrined has mouldered back to its kindred dust, the truths which it has unfolded, moral or intellectual, are holding on their pathway of light and glory, awakening other minds to the same heavenly career.

EDWARD EVERETT.

LIFE is the education-time, the seed-time for eternity ; there lies its whole importance.

THOMAS ERSKINE.

THINKING ALONE.

THE student must embrace solitude as a bride. He must have his glees and his glooms alone. His own estimate must be measure enough, his own praise reward enough for him. And why must the student be solitary and silent ? That he may become acquainted with his thoughts. If he pines in a lonely place, hankering for the crowd, for display, he is not in the lonely place ; his heart is in the market ; he does not see ; he does not hear ; he does not think. But go,

cherish your soul, expel companions, set your habits to a life of solitude ; then will the faculties rise fair and full within, like forest-trees and field-flowers ; you will have results which, when you meet your fellow-men, you can communicate, and they will gladly receive. Do not go into solitude only that you may presently come into public. Such solitude denies itself ; is public and stale. The public can get public experience ; but they wish the scholar to replace to them those private, sincere, divine experiences, of which they have been defrauded by dwelling in the streets. It is the noble, manlike, just thought, which is the superiority demanded of you ; and not crowds, but solitude, confers this elevation. Not insulation of place, but independence of spirit, is essential ; and it is only as the garden, the cottage, the forest, and the rock, are a sort of mechanical aids to this that they are of value. Think alone, and all places are friendly and sacred. The poets who have lived in cities have been hermits still. Inspiration makes solitude anywhere. Pindar, Raphael, Angelo, Dryden, De Staël, dwell in crowds. It may be ; but the instant thought comes, the crowd grows dim to their eye ; their eye fixes on the horizon ;—on vacant space ;—they forget the bystanders ; they spurn personal relations ; they deal with abstractions, with verities, with ideas. They are alone with the mind.

RALPH WALDO EMERSON.

TENURE OF OFFICE.

THE only tenure of office which is fit for a teacher is the tenure during good behavior and competency ; and this is the only tenure which will secure the services of

competent professors in colleges and universities. The frequency of the elections of teachers is a very bad feature in our public school system. Permanence of tenure is necessary to make the position of a teacher one of dignity and independence. Young men of vigor and capacity will not enter a profession which offers no money prizes, unless they are induced by its stability and peacefulness, and by the social consideration which attaches to it. The system which prevails in most of our large cities and towns, of electing the teachers in the public schools at least as often as once a year, is inconsistent with this dignity, peacefulness, and consideration, unless a firmly established custom of re-electing incumbents converts the constantly recurring elections into mere formalities.

CHARLES W. ELIOT.

MORAL PRINCIPLES.

THE duty of instructing the young includes several elements, the first and also the chief of which is, that the tender mind of the child should be instructed in piety; the second, that he love and learn the liberal arts; the third, that he be taught tact in the conduct of social life; and the fourth, that from his earliest age he accustom himself to good behavior, based on moral principles.

ERASMUS.

NORMAL SCHOOLS A SUCCESS.

THE normal school has on the whole attained a noble success in the United States. To use a less forcible expression for this fact would be an excessive affectation of a misplaced moderation. Some of the evidences of

this success have been indicated. They are found in the multiplication of the schools, in the demand for the services of the teachers educated in them. They are also found in the introduction of normal departments into colleges, academies, and seminaries. They are found in the confidence with which the public regard the schools generally. They are found in the genuine and substantial progress in education which they have done so much to promote. To ignore this great fact, much more to deny it, would be not only unpolitic, but unjust.

RICHARD EDWARDS.

NO DARK CONTINENTS.

How should the promoters of culture in every sphere and under every condition be up and doing! There should be no dark continent or island or corner; there should be no hiding-place for ignorance and its myriads of vassals where the light does not enter. Clearly, would you make the best of an individual, or a people, or a race, or a nation, you must go to education for the secrets of your success. Theories may be proclaimed in the valleys and from the mountain tops, the armies of the world may be marshalled upon its plains, the navies of the world may plough its seas, wealth may be accumulated until gold gilds the palaces of the rich, commerce may encircle the world, traversing the seas with its vessels, penetrating the mountains and spanning the rivers and valleys with its rails; emperors and kings and presidents and governors may proclaim their decrees and laws, and all, all will be in vain, if the schoolmaster, fully panoplied and fitly furnished for the right education of every child, is not abroad.

JOHN EATON.

You are well aware that it is not only by bodily exercises, by educational institutions, or by lessons in music that our youth are trained, but much more effectually by public examples.

ESCHINES.

INDIVIDUAL POSSIBILITY AND HUMAN AID.

WHEREVER there is a human mind possessed of the common faculties, and placed in a body organized with the common senses, there is an active, intelligent being, competent, with the proper cultivation, to the discovery of the highest truths in the natural, the social, and the political world. It is susceptible of demonstration, if demonstration were necessary, that the number of distinguished men which are to benefit and adorn the society around us will be exactly proportioned, upon the whole, to the means and encouragements to improvement existing in the community ; and everything which multiplies these means and encouragements tends, in the same proportion, to the multiplication of inventions and discoveries, useful and honorable to man. The mind, although it does not stand in need of high culture, for the attainment of great excellence does yet stand in need of some culture, and cannot thrive without it. When it is once awakened, and inspired with a consciousness of its own powers, and nourished into vigor by the intercourse of kindred minds, either through books or living converse, it does not disdain, but it needs not, further extraneous aid. It ceases to be a pupil ; it sets up for itself ; it becomes a master of truth, and goes fearlessly onward, sounding its way,

through the darkest regions of investigation. But it is almost indispensable that, in some way or other, the elements of truth should be imparted from kindred minds ; and if these are wholly withheld, the intellect, which, if properly cultivated, might have soared with Newton to the boundaries of the comet's orbit, is chained down to the wants and imperfections of mere physical life, unconscious of its own capacities, and unable to fulfil its higher destiny.

Contemplate, at this season of the year, one of the magnificent oak-trees of the forest, covered with thousands and thousands of acorns. There is not one of those acorns that does not carry within itself the germ of a perfect oak, as lofty and as wide-spreading as the parent stock ; which does not enfold the rudiments of a tree, that would strike its roots in the soil, and lift its branches towards the heavens, and brave the storms of a hundred winters. It needs, for this, but a handful of soil to receive the acorn as it falls, a little moisture to nourish it, and protection from violence till the root is struck. It needs but these ; and these it does need, and these it must have ; and for want of them, trifling as they seem, there is not one out of a thousand of those innumerable acorns which is destined to become a tree.

It is for want of the little that human means must add to the wonderful capacity for improvement born in man, that by far the greatest part of the intellect innate in our race perishes undeveloped and unknown. When an acorn falls upon an unfavorable spot, and decays there, we know the extent of the loss,—it is that of a tree, like the one from which it fell ; but when the intellect of a rational being, for want of culture, is lost to the

great ends for which it was created, it is a loss which no one can measure, either for time or for eternity.

EDWARD EVERETT.

THE safe path to excellence and success in every calling is that of appropriate preliminary education, diligent application to learn the art, and assiduity in practising it.

EDWARD EVERETT.

EDUCATED PUBLIC OPINION.

WITH reverence for self, comes respect for others; with knowledge of self, comes knowledge of the self-same laws that govern others, and, by consequence, a knowledge of, and respect for, the rights of others, which attained, the advancement of society in the paths of peace and prosperity is made certain. Liberty and order in all their beauty and perfect harmony, are secure in citadels unassailable; for a true and intelligent public opinion, with its wide-mouthed cannon and its shining bayonets, surrounds and guards them on every side; while in turn, it receives from them, as from an unfailing fountain, the waters which feed and purify it.

GEORGE F. EDMUNDS.

CULTIVATED MANNERS.

MANNERS are the happy way of doing things; each one a stroke of genius or of love, now repeated and hardened into usage, they form at last a rich varnish, with which the routine of life is washed, and its details adorned. If they are superficial, so are the dewdrops

which give such a depth to the morning meadows. Manners are very communicable ; men catch them from each other. Consuelo, in the romance, boasts of the lessons she had given the nobles in manners on the stage and in real life. Talma taught Napoleon the art of behavior. Genius invents fine manners, which the baron and the baroness copy very fast, and, by the advantage of a palace, better the instruction. They stereotype the lesson they have learned into a mode. The power of manner is incessant — an element as unconcealable as fire. The nobility cannot in any country be disguised, and no more in a republic or a democracy than in a kingdom. No man can resist their influence. There are certain manners which are learned in good society, of that force, that, if a person have them, he or she must be considered and is everywhere welcome, though without beauty, or wealth, or genius. Give a boy address and accomplishments, and you give him the mastery of palaces and fortunes where he goes ; he has not the trouble of earning or owning them ; they solicit him to enter and possess.

RALPH WALDO EMERSON.

THE GREEK LANGUAGE.

THE history of the Greek language is one of the most interesting subjects of literary investigation. Men of the clearest judgment unite with enthusiastic scholars in declaring it to be unrivalled for richness, copiousness, and strength. The old Ionic form, with its sounding combinations of vowels, gives a beautiful and liquid flow, while its happy descriptive and imitative epithets

impart the liveliness of painting itself to the stately hexameter. The Doric is sweet and simple in pastoral poetry, but rises to a severe grandeur in the lyrics of Pindar, and the choral songs of the tragedians. The Attic is the language of dramatic dialogue, history, logic, and philosophy ; the language of the high-wrought, impassioned argument of Demosthenes, the smooth eloquence of Isocrates, the refined subtilty of Lysias ; the language of the wire-drawn reasonings of Socrates, and the stern truths of Thucydides. Now, whence came this curiously contrived instrument of human thought ? What strange coincidence of happy influences wrought out of the simple elements of sound its extraordinary variety of expressive powers ? What finely organized people first gave utterance to its immortal harmonies ? From what region, blessed with Heaven's selectest influence, came they to the shores of Greece ? These are questions which have exercised the wits of the acutest men, and the learning of the ablest scholars, but with no very satisfactory result.

C. C. FELTON.

READ THE ORIGINALS.

WHEN youth are told that the great men whose lives and actions they read in history spoke two of the best languages that ever were, the most expressive, copious, beautiful ; and that the finest writings, the most correct compositions, the most perfect productions of human wit and wisdom, are in those languages, which have endured for ages, and will endure while there are men ; that no translation can do them justice, or give the

pleasure found in reading the originals ; that those original languages contain all science ; that one of them is become almost universal, being the language of learned men in all countries ; and that to understand them is a distinguishing ornament ; they may be thereby made desirous of learning those languages, and their industry sharpened in the acquisition of them. All intended for divinity should be taught the Latin and Greek ; for physics, the Latin, Greek, and French ; for law, the Latin and French ; merchants, the French, German, and Spanish ; and, though all should not be compelled to learn Latin, Greek, or the modern foreign languages, yet none that have an ardent desire to learn them should be refused ; their English, arithmetic, and other studies absolutely necessary, not being neglected.

BENJAMIN FRANKLIN.

THIS whole earth can be but a place of tuition till it becomes either a depopulated ruin or an elysium of perfect and happy beings.

JOHN FOSTER.

WILL IT PAY?

HARDLY a week passes that fathers and mothers and teachers do not ask me whether it will pay to send some bright, ambitious girl to college. There is but one answer : If civilization pays, if education is not a mistake, if hearts and brains and souls are more than the dress they wear, then, by every interest dear to a Christian republic, by all the hope we have of building finer characters than former generations have produced, give the girls the widest and the highest and the deepest

education we have dreamed of, and then regret that it is not better, broader, and deeper.

France never needed educated mothers as America needs them to-day, and France nor Europe ever realized the glory of civilization which will crown our Republic when all the homes, schoolrooms, and churches are filled with women as intelligent as they are loving, as broad-minded as they are large-hearted, as strong in body and mind as they have proved themselves generous in heart. The civilization of the Anglo-Saxon race in America, therefore, depends upon the education—physical, mental, moral, and social—of the women for the next fifty years.

MISS ALICE E. FREEMAN.

NEGLECTING THE MIND.

It is an extraordinary thing that man, with a mind so wonderful that there is nothing to compare with it elsewhere in the known creation, should leave it to run wild in respect of its highest elements and qualities. He has a power of comparison and judgment, by which his final resolves, and all those acts of his material system which distinguish him from the brutes, are guided; shall he omit to educate and improve them when education can do so much? Is it towards the very principles and privileges that distinguish him above other creatures, he should feel indifference? Because the education is internal, it is not the less needful; nor is it the more the duty of a man that he should cause his child to be taught than that he should teach himself. Indolence may tempt him to neglect the self-examination and experience which form his school, and weariness may

induce the evasion of the necessary practices ; but surely a thought of the prize should suffice to stimulate him to the requisite exertion ; and to those who reflect upon the many hours and days devoted by a lover of sweet sounds to gain a moderate facility upon a mere mechanical instrument, it ought to bring a correcting blush of shame, if they feel convicted of neglecting the beautiful living instrument wherein play all the powers of the mind.

MICHAEL FARADAY.

GEOGRAPHY, PHYSICAL AND POLITICAL.

CONNECT from the first, Physical geography with that which is called Political. By the former of course is meant the geography of the world as it would have been if man had never lived on it ; by the latter is meant all those facts which are the result of man's residence on the earth. But the second class of facts is nearly always to be accounted for by a study of the first. The earth is wonderfully designed for human habitation. It is our granary, our vineyard, our lordly pleasure-house. In some parts Nature is bountiful, in others penurious ; over some she sheds beauty, in others she offers material prosperity ; at one place she hides treasure, at another she spreads it on the surface. In some places she invites neighboring peoples to intercourse, in others she erects impenetrable barriers between them ; in some she lures the inhabitants to peaceful, prosaic industry, in others terrifies them by displays of awful and inexplicable forces. And even of those regions which she seems not to have designed for our use—the torrid desert, the lonely rocky mountains, and the mysterious

ice-bound regions of the poles — may we not truly say, that they too are part of the bountiful provision she has made for our many-sided wants? For they impress and exalt our imagination, they minister to our sense of beauty, and yet at the same time they humble our pride, and make us feel that there is something more in the world than is immediately and easily intelligible to us. They give us, in short, a sense of the mystery, the vastness, and the sumptuousness of the world, which is very necessary for a right estimate of our own true place in it.

And with such considerations before us we see how curiously the mere physical conditions in which man is placed determine his habits, the life he leads, the kind of societies he forms, the character and the history of different races.

J. G. FITCH.

UNITY and variety, as perfectly united as possible, are what education should strive after.

FROEBEL.

OPEN EYES.

CLASSICAL philosophy, classical history and literature, taking, as they do, no hold upon the living hearts and imagination of men in this modern age, leave their working intelligence a prey to wild imaginations, and make them incapable of really understanding the world in which they live. If the clergy knew as much of the history of England and Scotland as they know about Greece and Rome, if they had ever been taught to open their eyes and see what is actually round them instead

of groping among books to find what men did or thought at Alexandria or Constantinople fifteen hundred years ago, they would grapple more effectively with the moral pestilence which is poisoning all the air.

J. A. FROUDE.

THE TEACHER'S MONUMENT.

LET this amongst other motives make schoolmasters careful in their place, that the eminencies of their scholars have commended the memories of their schoolmasters to posterity, who otherwise in obscurity had altogether been forgotten. Who had ever heard of R. Bond in Lancashire, but for the breeding of learned Ascham, his scholar; or of Hartgrave in Brundley school, in the same county, but because he was the first did teach worthy Dr. Whittaker? Nor do I honor the memory of Mulcaster for anything so much as for his scholar, that gulf of learning, Bishop Andrews. This made the Athenians, the day before the great feast of Theseus their founder, to sacrifice a ram to the memory of Conidas his schoolmaster that first instructed him.

THOMAS FULLER.

WHEN there is no recreation or business for thee abroad, thou may'st then have a company of honest old fellows in leathern jackets, in thy study, which may find thee excellent divertisement at home.

THOMAS FULLER.

FACTS AND PRINCIPLES.

DETACHED facts on miscellaneous subjects, as they are taught at a modern school, are like separate letters of

endless alphabets. You may load the mechanical memory with them till it becomes a marvel of retentiveness. Your young prodigy may amaze examiners and delight inspectors. His achievements may be emblazoned in blue-books, and furnish matter for flattering reports on the excellence of our educational system; and all this while you have been feeding him with chips of granite. But arrange your letters into words, and each becomes a thought, a symbol waking in the mind an image of a real thing. Group your words into sentences, and thought is married to thought and produces other thoughts, and the chips of granite become soft bread, wholesome, nutritious, and invigorating. Teach your boys subjects which they can only remember mechanically, and you teach them nothing which it is worth their while to know. Teach them facts and principles which they can apply and use in the work of their lives; and if the object be to give your clever working lads a chance of rising to become presidents of the United States, or millionnaires with palaces and powdered footmen, the ascent into those blessed conditions will be easier and healthier along the track of an instructed industry, than by the paths which the most keenly sharpened wits would be apt to choose for themselves.

J. A. FROUDE.

THE LIFE SCIENCES.

THE sciences, of which I notice a great and general ignorance even among our best public school educated men,—that of the air, the earth, the water,—touch us at all points, every day, every hour, every where—they

make up life. And it is difficult to make such adult minds comprehend simple explanations, which if addressed to young people in school or in the shop, will be both intelligible, interesting, and profitable. I never yet found a boy so young as not to be able to understand by a simple explanation and to enjoy the point of an experiment. I find the grown-up minds coming back to me with the same questions over and over again. They are not prepared to receive these notions. They need the A B C of the subjects. I could teach a little boy of eleven years old, of ordinary intelligence, all those things in mechanics, hydrostatics, hydraulics, optics, which are usually taught at a much later period. These subjects, and chemistry and botany, should receive attention in apposite ways and times in school.

MICHAEL FARADAY.

EVERY man, unless he believes that he fell from the clouds, or that the beginning of the world dates at the date of his own birth, should take pains to become acquainted with what has taken place at other times and in other countries.

FREDERICK THE GREAT.

CULTIVATE THE FANCY.

ACQUAINT thyself with reading poets, for there Fancy is on her throne ; and in time, the sparks of the author's wit will catch hold on the reader, and inflame him with love, liking, and desire of imitation. I confess there is more required to teach one to write than to see a copy ; however, there is a secret force of fascination in reading poems to raise and provoke the fancy. . . . Acquaint thy-

self by degrees with hard and knotty studies, as school divinity, which will clog thy over-nimble fancy. True, at the first it will be as welcome to thee as a prison, and their very solutions will seem knots unto thee. But take not too much at once, lest thy brain turn edge. Taste it first as a potion for physic, and by degrees thou shalt drink it as beer, for thirst ; practice will make it pleasant. Mathematics are also good for this purpose. If beginning to make a conclusion, thou must make an end, lest thou lose thy pains that are past, and must proceed seriously and exactly.

THOMAS FULLER.

INSTRUCTION does not prevent waste of time or mistakes ; and mistakes themselves are often the best teachers of all.

J. A. FROUDE.

MATHEMATICAL SCIENCES.

WE return finally to the fundamental reason for teaching mathematics at all either to boys or men. Is it because the doctrines of number and of magnitude are in themselves so valuable, or stand in any visible relation to the subjects with which we have to deal most in after life? Assuredly not. But it is because a certain kind of mental exercise, of unquestioned service in connection with all conceivable subjects of thought, is best to be had in the domain of mathematics. Because in that high and serene region there is no party spirit, no personal controversy, no compromise, no balancing of probabilities, no painful misgiving lest what seems true to-day

may prove to be false to-morrow. Here, at least, the student moves from step to step, from premise to inference, from the known to the hitherto unknown, from antecedent to consequent, with a firm and assured tread; knowing well that he is in the presence of the highest certitude of which the human intelligence is capable, and that these are the methods by which approximate certitude is attainable in other departments of knowledge. No doubt your mere mathematician, if there be such a person, — he who expects to find all the truth in the world formulated and demonstrable in the same way as the truths of mathematics, — is a poor creature, or, to say the least, a very incomplete scholar. But he who has received no mathematical training, who has never had that side of his mind trained which deals with necessary truth, and with the rigorous, pitiless logic by which conclusions about circles and angles and numbers are arrived at, is more incomplete still; he is like one who lacks a sense; for him “wisdom at one entrance” is “quite shut out,” he is destitute of one of the chief instruments by which knowledge is attained.

Nor is it enough to regard mathematical science only in its far-reaching applications to such other subjects as astronomy and physics, or even in its indirect efficacy in strengthening the faculty of ratiocination in him who studies it. There is something surely in the beauty of the truths themselves. We are the richer—even though we look at them for their own sakes merely—for discerning the subtle harmonies and affinities of number and of magnitude, and the wonderful way in which, out of a few simple postulates and germinating truths, the mind of man can gradually unfold a whole sys-

tem of new and beautiful theorems, expanding into infinite and unexpected uses and applications. And as we look on them we are fain to say, as the brother in Comus said of a kind of philosophy which was novel to him, and which, perhaps, he had hitherto despised, that it is indeed

“Not harsh or crabbed, as dull fools suppose,
But musical as is Apollo’s lute,
And a perpetual feast of nectared sweets
Where no crude surfeit reigns.”

J. G. FITCH.

UNITY IN VARIETY.

ALL education must be according to nature. But since the first law of nature generally, and of human development especially, is unity in variety, therefore education must steadily have regard to this rule; and must seek to develop variety out of unity; so that a spherical figure is the image of this requirement. . . . True human training requires that man should be developed from within himself, a unity of spirit and feeling cultivated, and educated into an independent and all-sided expression of the unity of his mind and feelings.

FROEBEL.

No important result can be attained with regard to the accomplishment of any object which affects the temporal or eternal well-being of our species, without enlisting an entire devotedness to it, of intelligence, zeal, fidelity, industry, integrity, and practical exertion.

THOMAS H. GALLAUDET.

DANGEROUS AMBITION.

AMONGST the feelings which may animate a nation, there is one, the absence of which would be much to be deplored if it existed not, but which we should take care neither to flatter nor excite where we find it in exercise, — the sentiment of ambition. I honor aspiring spirits. Much is to be expected from them, provided they cannot easily attempt all they desire to accomplish. And as, in our days, of all ambitions the most ardent, if not the most apparent, especially amongst the industrial classes, is the ambition of intelligence, from which they look for the gratifications of self-love and the means of fortune — it is that, above all others, the development of which, while we treat it with indulgence, we should watch over and direct with unceasing care. I know nothing at present more injurious to society, or more hurtful to the people themselves, than the small amount of ill-directed popular erudition, and the vague, incoherent, and false, although, at the same time, active and powerful, ideas with which it fills their heads.

GUIZOT.

REVERENCE FOR BOYS.

I FEEL a profounder reverence for a boy than for a man. I never meet a ragged boy of the street, without feeling that I may owe him a salute, for I know not what possibilities may be buttoned up under his shabby coat. When I meet you in the full flush of mature life, I see nearly all there is of you ; but among the boys are the great men of the future ; the heroes of the next generation ; the philosophers, the statesmen, the philan-

thropists, the great reformers and moulders of the next age. Therefore, I say, there is a peculiar charm to me in the exhibitions of young people engaged in the business of education.

JAMES A. GARFIELD.

BABY SCIENTISTS.

ALL the sciences begin in the cradle. In the simplest form observed by the child, lies the beginning of both natural history and geometry. In its first conscious exercise of motion and force, begin natural philosophy and mechanics. In the watched play of a sunbeam, is read the first lesson in optics and astronomy. With the counted fingers begins elementary arithmetic. The first expeditions of the tiny pattering feet invade the realms of geography and geology, and the busy play of childish hands explore half a score of sciences. Even the metaphysical sciences are begun here. In the recognized word of endearment, or the familiarized call to food, both language and logic has a place; and mental philosophy begins with the first perception of thought or feeling read by the child in the mother's face. No pupil enters our public schools who has not already begun the study of every branch of knowledge, and acquired hundreds of facts in every one of the sciences. Every science, in its infancy, began with just such facts as these,—simple facts of sense,—and centuries of observation and slow accumulation passed by, before the scientific formula was reached, and the underlying philosophies emerged to view.

JOHN M. GREGORY.

ENGLISH LITERATURE.

ONE of the principal advantages of the class-room study of English literature is that it familiarizes the student with suitable models for composition and places before him lofty, yet not altogether unattainable, ideals. In the choice of authors to be read, and in our methods of study, this end should be distinctly borne in mind. Meanwhile, from advanced students, I would require brief dissertations on special points illustrative of the work in hand or cognate themes. But I should take especial pains not to make the authors in hand a weariness or a bore to my pupils, passing pretty rapidly from one author to another. To know a little about an author and *love* him, is a great deal better, in the long run, than to know a good deal about that author and *detest* him. From the modern and more easily apprehended specimens of English and American literature, I should work back to those which are more obscure and more difficult. My object throughout would be to cultivate an intelligent appreciation — a positive love — for those treasures of genius, those masterpieces of literary art, which are embodied in our mother tongue; such a love as would be a delight, a sustaining, comforting, restraining influence throughout life. It is, as I understand it, the function of the teacher of English literature, in our academies and high schools, to do for those devoid of home culture what is done spontaneously, and without care or pains, in those abodes of refinement where the names, the works of those

“Dead but accepted sovereigns who still rule
Our spirits from their urns”

are from childhood as household words.

J. H. GILMORE.

THE STUDY OF PSYCHOLOGY.

NEXT, I mention as the subject for university study, Psychology, the nature of man's soul, the characteristics of his mental and moral activity. This science has lately made great progress ; it has improved its methods and enlarged its scope. Those who are devoted to it appreciate the inherited experiences of the human race, and are not indifferent to the lessons which may proceed from intuition and introspection ; they study all the manifestations of intellectual life ; but, on the other hand, they are not afraid to inquire, and they know how to inquire, into the physical conditions under which the mind works : they watch the spontaneous, unconventional actions of children ; they investigate the laws of heredity ; they examine with curious gaze the eccentricities of genius ; and with discerning, often with remedial eye, the alienation of human powers ; and they believe that by a combination of these and other methods of research, among which experiment has its legitimate place, the conduct of the human understanding and the laws of progressive morality will be better understood, so that more wholesome methods of education will be employed in schools of every grade. They acknowledge the superiority of the soul to the body, and they stand in awe before the mysteries which are as impenetrable to modern investigators as they were to Leibnitz and Spinoza, to Abelard and Aquinas, to Aristotle and Plato, the mystery of man's conscious responsibility, his intimations of immortality, his relations to the Infinite.

THE TEACHER A STUDENT.

It is the business of a university to advance knowledge; every professor must be a student. No history is so remote that it may be neglected; no law of mathematics is so hidden that it may not be sought out; no problem in respect to physics is so difficult that it must be shunned. No love of ease, no dread of labor, no fear of consequences, no desire for wealth, will deter a band of well-chosen professors from uniting their forces in the prosecution of study. Rather let me say that there are heroes and martyrs, prophets and apostles of learning, as there are of religion. To the claims of duty, to the responsibilities of station, to the voices of enlightened conscience, such men respond, and they throw their hearts into their work with as much devotion, and as little selfishness, as it is possible for human nature to exhibit. By their labors knowledge has been accumulated, intellectual capital has been acquired. In these processes of investigation the leading universities of the world are engaged.

This is what laboratories, museums, and libraries signify. Nothing is foreign to their purpose, and those who work in them are animated by the firm belief that the advancement of knowledge in any direction contributes to the welfare of man. Nor is research restricted to material things — the scholars of a university are equally interested in all that pertains to the nature of man, the growth of society, the study of language, and the establishment of the principles of intellectual and moral conduct.

DANIEL C. GILMAN.

TIME-SERVERS.

OUR young people should be taught to be always alive to the circumstances which surround them; and, in the only good and happy sense of the term, to be time-servers. It is desirable that they should be observant not only of their books, but of all things not sinful which meet their perception, in the passing scenery of life. By this means they will greatly increase their store of knowledge, and will be gradually prepared for usefulness in their day and generation.

JOSEPH JOHN GURNEY.

MORAL ENTHUSIASM.

AN intense moral enthusiasm must underlie and furnish the most powerful spring of every truly noble life. A soul without such motive must fail. Half-hearted work can never succeed where man has all the forces of nature, and all the adverse forces of his own being and of society to contend with, master, and turn to account. One who saw Michael Angelo engaged at his work tells us that he wrought with fearful energy and earnestness. He would accomplish many times as much as other men. Every stroke was so with all the soul, that, as he saw the huge fragments fly from the rapid blows, the observer trembled lest the statue should be ruined. But the enthusiastic workman held ceaselessly on, cutting and filing, dashing off as incumbrances every particle which hindered the completion of the likeness, until the once shapeless block took shape and polish and beauty, and stood forth the finished work of his hand,

his brain, his soul, his life, and the perfect embodiment of his ideal. Any man who would accomplish the true work of life may see in the great sculptor his model. With the grandest possible mission of duty taking hold on God and immortality, his may well be the grandest possible moral enthusiasm; and with the whole being directed ceaselessly to the fulfilment of such a mission under the influence of such a motive, his may well be the grandest possible moral success.

D. S. GREGORY.

A PLEA FOR THE CLASSICS.

THE scientific school and the classical cannot coalesce. They differ in the choice of studies. They also differ in the modes and in the aims of study. The one is special, the other general. The one assumes a chosen field of work, and prepares the student to fill it. The other knows nothing about the student's ultimate intentions, and cares nothing for them. The one dismisses its pupil with a certificate of preparation for his future work. The other admonishes him that his broader study must be supplemented by his technical training. To substitute the scientific school for the classical is merely to build the superstructure at the expense of its foundation, to let an easier and a shorter discipline take the place of a severer and a more prolonged. If the additional time gained for a practical branch of education secures greater depth of acquirement, this advantage is offset by the loss of that breadth which is even more important to youth. Of course, in dealing with the higher education we must assume the student's

ability to give to it the necessary time, just as the existence of the higher schools implies wealth and leisure and culture in the community which supports them. The classical school could not exist in a purely industrial society, dependent for its daily support on its daily labor.

The choice then urged upon us is between a preparatory education that is general, and one that is special; between a course of study which is built up on the Greek as the most perfect language for the expression of human thought ever used by man, the language underlying all modern literature and permeating all western culture, and a course that substitutes for the Greek something, the acquisition of which involves less labor and requires less time. I say build up on the Greek, for its influence upon the Latin was so strong that to one ignorant of it, Roman literature is meaningless, and Roman history, during the periods in which Roman action and Roman thought have most affected our own, becomes unintelligible. I say build up on the Greek, for broad culture involves Greek learning by an implication more close and necessary than I fear even some of our instructors are willing to admit. Without Greek the very name of classical education becomes a misnomer. One half of modern and mediæval life can be explained only by reference to Roman letters, Roman thought, and Roman law, and all these drew their inspiration and much of their matter from that long roll which contains the records of Greek genius, beginning with the marvellous songs of the Homeric Skalds, and for us ending with the splendid harangues of Chrusostomos.

THE love of study, a passion which derives fresh vigor from enjoyment, supplies each day, each hour, with a perpetual source of independent and rational pleasure.

EDWARD GIBBON.

EDUCATION LIFE-LONG.

IT is an error to suppose that a course of study is confined to the period of youth, and that when a young man has left school or college, he has finished his education, and has nothing to study but his profession. In truth he has done little more than treasure up some of the important materials and acquire the elementary habits and discipline which are indispensable to the continued improvement of his mind. If he expects to be a scholar, not in the *literary* sense of the word, but in a far higher and nobler sense, as a Christian, patriot, philanthropist, and public servant, in the state or national councils, in literary, benevolent, and religious institutions; if he means to be distinguished for his sense of duty, and his spirit of usefulness, for just principles, enlarged views, dignified sentiments and liberal feelings, for sound thinking and clear, close reasoning, let him be assured that he has done little more than lay the foundations, in the school, or even in the college, up to the age of twenty. He must make up his mind to be a devoted student, in spite of his professional engagements, for ten years at least; until he shall have been able to deepen, and strengthen, and enlarge, and elevate his mind, so as to fit himself for solid, honorable, permanent usefulness. Let him remember that the *school* only prepares the *youth* to enter on the course of study

appropriate to the young man; and that the *college* only enables the *young man* to enter on the course of study appropriate to the man. Manhood has its appropriate course of study, and the difference between men arises very much from their selection and pursuit of a right course of study. Many fine minds, capable of enlarged and durable improvement and usefulness, are lost every year to the community in which their lot is cast, to the country they are bound to serve, to the cause of religion, humanity, justice, and literature; because they have failed in this great duty, they have neglected the course of study appropriate to manhood. And here let it be remarked that the true student never considers how much he reads, but rather how little, and only what and how he reads.

T. S. GRIMKE.

A NEGLECTED STUDY.

THERE is one department of industry, that of agriculture, for which no provision is made in our popular system. There is scarcely anything which has the most remote bearing upon the subject. The great business of life, for the majority of mankind, is left to be practised merely as an art, based upon no scientific principles. "The fathers have eaten sour grapes, and the children's teeth are set on edge." There is enough published on agriculture, there are sufficient inducements to try experiments, offered by societies and by the legislature, but there is wanted a *recipient power* in the general mind, the power of being instructed. . . . The title which Boyle has given to one of his essays applies with great force to this subject, — "Of man's

great ignorance of the uses of natural things." This I regard as the most glaring defect in our system of popular instruction, and one which demands, from the magnitude of the interests involved, the immediate and earnest attention of all the friends of education.

ASA GRAY.

SKILL is a consequence of education, and skill is a power ever tending to increase itself, and improve the condition of man.

ANONYMOUS.

EDUCATED WOMEN A NECESSITY.

EVERY society needs the very best talent, the highest cultivated talent that it can get for its own preservation and safety, and for its own elevation and progress. Every society, I say, needs all and the best intellect that it can get. Our own society, our democratic society, where all the winds of heaven are permitted to blow with such freedom, especially demands this. We have a great many adverse influences falling in upon us through emigration from the Old World, falling in upon us from the savages or demi-savages of the frontier, rising upon us from the lower strata of society, and we need every influence of good that we can command to counteract their effects. We need all the intellect and all the heart of society to meet these retrograding, down-pulling tendencies. We need particularly the assistance of the women. You know it has been said that every great man has had a great mother; we might better say that every man who is anything at all has

had a great mother. As the mother's influence is the earliest, so the influence of the woman is the most permanent of all the influences in society. We want that influence in its best and noblest form ; we want it in its most cultivated form. . . .

We, of New York, that boasts itself the commercial metropolis, should have the ambition at least, if not the determination, to make it also the intellectual metropolis. We here should open our institutions, for we have some of the very great ones, largely endowed with means and well supplied with instructors. I say that we should insist that New York should keep on a level with the other cities of the civilized world, by opening all her institutions of learning, particularly the higher of them, to the free access of the female sex.

PARKE GODWIN.

THE FASCINATION OF GREEK.

A PROMINENT Englishman who has carefully watched the career of the men who were educated at Oxford and Cambridge during the first half of this century, writing late in life to an early Oxford friend, makes some suggestive comments in speaking of the college studies of mutual friends. He calls attention to the fact that the university men of that period, who have since become prominent in literature, politics, and science, are generally men who were noted in college as especially proficient in the study of Greek. The "honor men" in Greek, almost without exception, have made their mark in life. This is not equally true, he says, of men who have taken honors for scholarship in Latin, the sciences,

or mathematics. Greek seemed to be the touchstone for ability. And the truth educed was, not that excellence in Greek was the cause of subsequent success, but that no other branch of study was so certain to attract and to hold those well-balanced, discriminating, yet powerful minds which make themselves felt, by words and deeds, in the life and the history of a generation. Every teacher of the classics has seen this power of the genius of the Greek language to choose and hold its friends. And yet Greek is commonly spoken of as a study which must be disagreeable at first.

MERRILL EDWARDS GATES.

MEN should not aim at talents they have not, but seek to cultivate those they have.

ANONYMOUS.

EARLY IMPRESSIONS.

LET no one think to erase the earliest impressions of youth. If they have grown up in a happy freedom, surrounded with good and noble circumstances, in intercourse with good men; if their masters have taught them what must first be learned in order to make it easier to learn all else, and if they have acquired all such learning as should never be forgotten; if their first actions have been so managed that they can in future perfect themselves in goodness, with greater ease and efficiency, without being obliged to unlearn anything; in such cases they will live lives more pure, perfect, and happy than persons whose first youthful powers are exerted in the midst of untoward influences and evils.

GOETHE.

IF that sense of subordination is not cultivated in children which develops aspirations after greatness, the result is forwardness and pretension to wisdom.

HEGEL.

KNOWLEDGE AND DISCIPLINE.

THE great ends of education are two,—knowledge and discipline. Knowledge of itself possesses a high value; discipline of itself is much more valuable. This principle is universally admitted by educators. Hence, in the selection of a course of study, the question asked by intelligent men is not what studies will yield the largest amount of immediate knowledge, but from what can be obtained the highest mental and moral discipline—a discipline which will enable its possessors to gather knowledge readily in any desired field, and to perform with success the various moral duties of life.

DANIEL B. HAGAR.

MACHINE TEACHERS AND METHODS.

THIS higher education of teachers as a class renders possible the successful introduction into the lower schools, — especially into the primary departments, — of those improved methods of instruction which have lifted teaching from something less than an empiric art to the level of a science, and are doing more than any other agency to make knowledge loved by the whole people. Without the character, training and resources which come to our teachers from a high-school education, these methods would prove an utter failure, or degenerate into a mechanism more lifeless than the worse mechanism of

the dreadful past ; for it may be stated as an educational axiom, that intelligent methods can be applied by intelligent teachers only. Machine methods are necessary wherever machine teachers are found.

JOHN HANCOCK.

PHILOSOPHICAL TEACHING.

PHILOSOPHICAL teaching flows from a scientific knowledge of education. It embraces, first, a knowledge of the mind, and of minds ; second, a knowledge of the branches of knowledge taught ; third, a knowledge of the relations of these branches and the mind, considered as the materials or instruments of education, not to mention other matters. Such knowledge as this includes personal experience, but it also includes much of the best that has been thought and said of the science, history, and art of education. Accordingly the philosophical teacher expands what he has seen and thought into what others have seen and thought ; he has corrected his own theories and tested his own process by bringing them into contact with the general body of educational doctrine and history. Perhaps it is needless to say that this is the highest kind of teaching ; and that to lift the teaching of the country nearer and nearer to this level is the great endeavor of those who are intelligently engaged in the educational work.

B. A. HINSDALE.

ALL learning is self-teaching. It is in the working of the pupil's own mind that his progress in knowledge depends. The great business of the master is to teach the pupil to teach himself.

ANONYMOUS.

SELF-EDUCATED MEN.

WE hear much said about self-educated men, and a broad distinction is made between them and others ; but the truth is, that every man who is educated at all is, and must be, self-educated.

There are no more two methods in which the mind can make progress, than there are two methods in which plants can grow. One seed may be blown by the winds, and cast upon the southern, or perchance on the northern side of some distant hill, and may there germinate, and take root, and do battle alone with the elements, and it may be so favored by the soil and climate that it shall lift itself in surpassing strength and beauty ; another may be planted carefully in a good soil, and the hand of tillage may be applied to it, yet must this also draw for itself nutriment from the soil, and for itself withstand the rush of the tempest, and lift its head on high only as it strikes its roots deep in the earth. It is for the want of understanding this properly, that extravagant expectations are entertained of instructors and of institutions ; and that those who go to college sometimes expect, and the community expect, that they will be learned, of course,—as if they could be inoculated with knowledge, or obtain it by absorption. This broad distinction between self-educated men and others has done harm ; for young men will not set themselves efficiently at work until they feel that there is an all-important part which they must perfect for themselves, and which no one can do for them.

MARK HOPKINS.

A DRAUGHT OF NECTAR.

SUPPOSE a person to have studied Xenophon and Thucydides, till he has attained to the same thorough comprehension of them both ; and this is so far from being an unwarrantable supposition that the very difficulties of Thucydides tempt and stimulate an intelligent reader to form a more intimate acquaintance with him : which of the two will have strengthened the student's mind the most ? From which will he have derived the richest and most lasting treasures of thought ? Who that has made friends with Dante, has not had his intellect nerved and expanded by following the pilgrim through his triple world ? and would Tasso have done as much for him ? The labor itself, which must be spent in order to understand Sophocles or Shakespeare, to search out their hidden beauties, to trace their labyrinthine movements, to dive into their bright, jewelled caverns, and converse with the sea-nymphs that dwell there, is its own abundant reward ; not merely from the enjoyment that accompanies it, but because such pleasure—indeed, all pleasure that is congenial to our better nature—is refreshing and invigorating, like a draught of nectar from heaven. In such studies we imitate the example of the eagle, unsealing his eyesight by gazing at the sun.

J. C. HARE.

THE FINEST OF THE FINE ARTS.

STILL another of the silent but formative agencies in education is that combination of physical signs and motions which we designate in the aggregate as manners. Some one has said : “ A beautiful form is better than a

beautiful face ; but beautiful behavior is better than a beautiful form. It is the finest of the fine arts. It abolishes all considerations of magnitude, and equals the majesty of the world." A treatise that should philosophically exhibit the relative proportion of text-books and mere manners, in their effects on the whole being of a pupil, would probably offer matter for surprise and for use. It was said that an experienced observer could tell, in Parliament, of a morning, which way the ministerial wind blew, by noticing how Sir Robert Peel threw open the collar of his coat. Manners are a compound of form and spirit — spirit acted into form. The reason that the manner is so often spiritless and unmeaning is, that the person does not contain mind enough to inform and carry off the body. There is a struggle between the liberty of the heart and the resistance of the machine, resulting in awkwardness whenever the latter gets the advantage. The reason a person's manner is formal is, that his sluggish imitation of what he has seen, or else a false and selfish ambition, comes in between his nature and his action, to disturb the harmony and overbear a real grace with a vicious ornament. The young, quite as readily as the old, detect a sensible and kind and high-hearted nature, or its opposite, through this visible system of characters, but they draw their conclusion without knowing any such process, as unconsciously as the manner itself is worn. The effect takes place both on the intellectual faculties and the affections ; for very fine manners are able to quicken and sharpen the play of thought, making conversation more brilliant because the conceptions are livelier. D'Aguesseau says of Fenelon, that the charm of his manner, and a certain

indescribable expression, made his hearers fancy that instead of mastering the sciences he discoursed upon, he had invented them.

Manners also react upon the mind that produces them, just as they themselves are reacted upon by the dress in which they appear. It used to be a saying among the old-school gentlemen and ladies, that a courtly bow could not be made without a handsome stocking and slipper. Then there is a connection more sacred still between the manners and the affections. They act magically upon the springs of feeling. They teach us love and hate, indifference and zeal. They are the ever-present sculpture-gallery. The spinal cord is a telegraphic wire with a hundred ends. But whoever imagines legitimate manners can be taken up and laid aside, put on and off, for the moment, has missed their deepest law.

Doubtless there are artificial manners, but only in artificial persons. A French dancing-master, a Monsieur Turveydrop, can manufacture a deportment for you, and you can wear it, but not till your mind has condescended to the Turveydrop level, and then the deportment only faithfully indicates the character again. A noble and attractive every-day bearing comes of goodness, of sincerity, of refinement. And these are bred in years, not moments. The principle that rules your life is the sure posture-master.

FREDERIC D. HUNTINGTON.

WHAT a man has learned is of importance, but what he is, what he can do, what he will become, are more significant things.

ARTHUR HELPS.

A LIBERAL EDUCATION.

THAT man, I think, has had a liberal education who has been so trained in youth, that his body is the ready servant of his will, and does with ease and pleasure all the work that as a mechanism it is capable of; whose intellect is a clear, cold, logic engine, with all its parts of equal strength, and in smooth working order, ready like a steam engine, to be turned to any kind of work, and spin the gossamers as well as forge the anchors of the mind; whose mind is stored with a knowledge of the great and fundamental truths of nature, and of the laws of her operations; and who, no stunted ascetic, is full of life and fire, but whose passions are trained to come to heel by a vigorous will, the servant of a tender conscience; who has learned to love all beauty whether of nature or of art, to hate all vileness, and to respect others as himself.

THOMAS H. HUXLEY.

OUR whole life is an education; we are ever learning; every moment of time, everywhere, under all circumstances, something is being added to the stock of our previous attainments.

PAXTON HOOD.

RECONSTRUCTIVE POWER.

It has been often said of the celebrated naturalist, Cuvier, with an expression of wonder akin to our amusement at the exploits of a magician, that, if a single bone of a fossil was presented to him, he would from that

reconstruct a picture of the entire animal. This reconstructive power is a high accomplishment, and is not confined to the production of megatheriums, mastodons, and other monsters, which, by reversing the prophetic telescope, science beholds wandering about on the earth. This faculty is also employed by the archæologist, by the critic of ancient writings, sacred or profane. What an eloquent teacher to an acute numismatist is an old coin, or to an antiquarian is an inscription in an unknown tongue! The analytic power has been tasked to the utmost to decipher the fragmentary lore of antiquity. And though enthusiasts may have been deceived, sometimes intentionally, by "modern instances" clothed in artificial moss, yet the true exploits of the human mind in this direction, challenge our highest admiration.

This mental faculty, requiring as it does acuteness of perception and comprehensiveness of generalization, may be exercised on modern things, and enables its possessor not only to reproduce the past, but also more fully to understand the present, and to provide both things for the future.

This faculty ought to be directly trained and exercised in our schools, in a series of studies which would naturally follow object-lessons. The pupil should be trained not only to describe the actual, with the object before him, but also to project the actual, past, present, or future, with only imperfect fragments of the suggestive objects before him. He should be taught to be a creator as well as an observer, for only he who can create is competent to control.

STUDY OF PRINCIPLES.

IF a child can ask questions such as would puzzle a philosopher, let us remember that the greatest philosopher can say things such as the simplest child could understand. In very truth, the philosopher is sadly wanted in our schoolrooms. The better arrangement, the enlightenment of facts, is wanted. To be sure, the pupil will not comprehend at once the full force and excellence of any principles given him; but the bare facts with which he is now fed, — does he realize them at once? At all events, whatever prominence you may concede to principles, the instruction ought always to be based on principles which will, in process of time, unveil themselves to him. Like the loveless old hag, in the old story, who, when the knight in obedience to his promise has, amid the mingled scorn and pity of his fellows, married her, turns out of a sudden an exquisite beauty, so the lessons of one's boyhood, however dull and dreary at the time, ought at last to be found the containers of what is true and beautiful. They ought at last to be recognized as the harmonious limbs of a well-formed, soul-inspired body. Are they so recognized? Or are they found a sorry collection of odd members, many a one of them misshapen and distorted, that could never have been compacted harmoniously together, with a spirit to rule and glorify them? Such are facts when they are not connected with principles.

J. W. HALES.

THE intellectual faculty is a goodly field capable of great improvement, and it is the worst husbandry in the world to sow it with trifles or impertinences.

SIR MATTHEW HALE.

INTELLECTUAL LIVING.

THE essence of intellectual living does not reside in extent of science or in perfection of expression, but in a constant preference for higher thoughts over lower thoughts, and this preference may be the habit of a mind which has not any very considerable amount of information. This may be very easily demonstrated by a reference to men who lived intellectually in ages when science had scarcely begun to exist, and when there was but little literature that could be of use as an aid to culture. The humblest subscriber to a mechanic's institute has easier access to sound learning than had either Solomon or Aristotle, yet both Solomon and Aristotle lived the intellectual life. Whoever reads English is richer in the aids to culture than Plato was, yet Plato *thought* intellectually. It is not erudition that makes the intellectual man, but a sort of virtue which delights in vigorous and beautiful conduct. Intellectual living is not so much an accomplishment as a state or condition of the mind in which it seeks earnestly for the highest and purest truth. It is the continual exercise of a firmly noble choice between the larger truth and the lesser, between that which is perfectly just and that which falls a little short of justice. The ideal life would be to choose thus firmly and delicately always; yet if we often blunder and fail for want of perfect wisdom and clear light, have we not the inward assurance that our aspiration has been not all in vain, that it has brought us a little nearer to the Supreme Intellect whose effulgence draws us whilst it dazzles? Here is the true secret of that fascination which belongs to intellectual

pursuits, that they reveal to us a little more, and yet a little more, of the eternal order of the Universe, establishing us so firmly in what is known, that we acquire an unshakable confidence in the laws which govern what is not, and never can be known.

PHILIP GILBERT HAMERTON.

EDUCATE towards a knowledge of truth, a love of the beautiful, a habit of doing the good, because only through these forms can the self-activity continue to develop progressively in this universe.

WM. T. HARRIS.

THE CLASSICS A DELIGHT.

THE error committed in our colleges, of making Latin and Greek compulsory, and, therefore, unattractive, should not make us forget that this is, after all, an error in the direction of high culture, and one more pardonable in America than anywhere else. These languages are a perpetual protest against the strong tendency to make all American education hasty and superficial. They stand for a learning which makes no money, but helps to make men. Astronomy, metaphysics, the higher mathematics, and the critical or literary study of the modern languages, have the same advantage; but the Latin and Greek tongues represent this culture best, for they remain still synonymous with accurate linguistic training, and with the study of form in literature. Compared with these, all modern languages are undeniably loose in structure, deficient in models, and destitute of the apparatus of critical study. It is certainly unfortunate that it is so ;

but there is the fact. The modern languages must be completely transformed in structure, literary models, text-books, and mode of teaching, before they can be used in education as we now use the Latin and Greek. I know of no institution in America in which it is even attempted thus to use them; none where they are yet taught except as accomplishments. Nor is it apparent how they could be otherwise taught with the ordinary instrumentalities. A man may speak a dozen dialects as fluently as a European courier, and yet know as little as the courier knows of the principles of language. On the other hand, it is impossible for any boy to have faithfully learned the simplest manual of Latin or Greek grammar without having laid some foundation for systematic philology.

And as for the literary value of these languages, I will go still further, and with especial reference to that which there is most disposition to banish from use—the Greek. It certainly is not a hasty or boyish judgment on my part, nor yet one in which pedantry or servility can have much to do, when I deliberately avow the belief that the Greek literature is still so entirely unequalled among the accumulated memorials of the world, that it seems to differ from all others in kind rather than in degree. In writing this I am thinking less of Plato than of Homer, and not more of Homer than of the dramatic and lyric poets. So far from the knowledge of other literatures tending to depreciate the Greek, it seems to me that no one can adequately value this who has not come back to it after long study of the others. Ampère, that master of French prose, has hardly overstated the truth when he says that the

man best versed in all other books must say, after all, in returning to a volume of Homer or Sophocles, "Here is beauty true and sovereign; its like was never written among men — *Voilà la beauté véritable et souveraine; jamais il ne s'est écrit rien de pareil chez les hommes.*" I do not see how there could possibly be a list of the dozen masterpieces of the world's literature of which at least one-half should not be Greek. And, indeed, when one considers the mere vehicle, the language itself, one must remember that there is no more possibility of arbitrary choice in languages than in stones; the best is the best; and Greek, the native tongue of sculptors, is the only tongue that has the texture of marble.

THOMAS WENTWORTH HIGGINSON.

NOTIONS may be imported by books from abroad; ideas must be grown at home by thought.

J. C. HARE.

HOW I WAS EDUCATED.

BUT the good of a college is not in the things which it teaches. I believe the "New Education" thinks it is; but that is the mistake of the New Education. The good of a college is to be had from "the fellows" who are there, and your associations with them. With a small circle of admirable friends of whom this world is by no means worthy, and in a less degree in the various clubs, — even in the much-abused debating societies, — I picked up a set of habits and facilities for doing things one has to do, for which I am very grateful to Harvard College. I disliked the drudgery of

college life through and through. I counted the days to the next vacation from the beginning of every term; and there were then, alas! three terms in every year. But, none the less, I ought to say that I do not believe that any life outside of a college has yet been found that will in general do so much for a man in helping him for this business of living. I could get more information out of "Chamber's Encyclopædia," which you can buy for ten dollars, than any man will acquire, as facts, by spending four years in any college. But the business of changing a boy into a man, or, if you please, changing an unlicked cub into a well-trained gentleman, is, on the whole, more simply and certainly done in a good college than anywhere else. So, as Nestor says, "it seems to me."

EDWARD EVERETT HALE.

A LOFTY AIM.

I KNOW that shortcomings in education, as in all else, are more easily seen than avoided. I know, too, in some degree, the value even of simple human passion and inclination as whip and spur to our natural indolence. But I feel above all else that educators in America are bound to concert their plans and increase their efforts in order to uphold a scheme of education worthy of the children of a great democratic republic. Their first object should be to present to the young persons under their charge a view of life so just and adequate that these, passing from the bounds of tutelage, shall know where and how to seek the real honor, the steadfast good, the abiding triumph of the just.

MRS. JULIA WARD HOWE.

THE EDUCATOR'S RESPONSIBILITY.

I WILL not believe that the life of nations is like the life of trees ; that by an inevitable law they, too, have their periods of growth, maturity, and decline. But I hold that it is sin alone that makes a people weak, and wickedness that makes them old, and that in the fear of God and the keeping of his commandments there is perpetual youth. Upon us, and those who are to come after us ; upon the young especially, who are ever the patriot's hope and the good man's trust ; and upon those to whom the training of the young is entrusted, whether as parents or teachers, does this great responsibility rest.

GEORGE S. HILLARD.

THOSE who take honors in nature's university, who learn the laws which govern men and things and obey them, are the really great and successful men in this world.

THOMAS H. HUXLEY.

WE WORK FOR CULTURE.

WHATEVER you study, some one will consider that particular study a foolish waste of time.

If you were to abandon successively every subject of intellectual labor which had, in its turn, been condemned by some adviser as useless, the result would be simple intellectual nakedness. The classical languages, to begin with, have long been considered useless by the majority of practical people — and pray, what to shop-keepers, doctors, attorneys, artists, can be the use of

the higher mathematics? And if these studies, which have been conventionally classed as serious studies, are considered unnecessary notwithstanding the tremendous authority of custom, how much the more are those studies exposed to a like contempt which belong to the category of accomplishments. What is the use of drawing, for it ends in a worthless sketch? Why should we study music when after wasting a thousand hours the amateur cannot satisfy the ear? *A quoi bon* modern languages when the accomplishment only enables us to call a waiter in French or German who is sure to answer us in English? And what, when it is not your trade, can be the good of dissecting plants or animals?

To all questionings of this kind there is but one reply. We work for culture. We work to enlarge the intelligence, and to make it a better and more effective instrument. This is our main purpose; but it may be added that even for special labors it is always difficult to say beforehand exactly what will turn out in the end to be most useful. What, in appearance, can be more eminently outside the work of a landscape painter than the study of ancient history? And yet I can show you how an interest in ancient history might indirectly be of great service to a landscape painter. It would make him profoundly feel the human associations of many localities which to an ignorant man would be devoid of interest or meaning; and this human interest in the scenes where great events have taken place, or which have been distinguished by the habitation of illustrious men in other ages, is in fact one of the great fundamental motives of landscape painting. It has been very much questioned, especially by foreign critics, whether

the interest in botany which is taken by some of the more cultivated English landscape painters is not for them a false direction and wrong employment of the mind ; but a landscape painter may feel his interest in vegetation infinitely increased by the accurate knowledge of its laws, and such an increase of interest would make him work more zealously, and with less danger of weariness and *ennui*, besides being a very useful help to the memory in retaining the authentic vegetable forms. It may seem more difficult to show the possibility of a study apparently so entirely outside of other studies as music is ; and yet music has an important influence on the whole of our emotional nature, and indirectly upon expression of all kinds. He who has once learned the self-control of the musician, the use of piano and forte, each in its right place, when to be lightly swift or majestically slow, and especially how to keep to the key once chosen until the right time has come for changing it ; he who has once learned this knows the secret of the arts. No painter, writer, orator, who had the power and judgment of a thoroughly cultivated musician, could sin against the broad principles of taste.

PHILIP GILBERT HAMERTON.

PHYSICAL SCIENCE.

MODERN civilization rests upon physical science ; take away her gifts to our own country, and our position among the leading nations of the world is gone to-morrow ; for it is physical science only that makes intelligence and moral energy stronger than brute force.

Physical science, its methods, its problems, and its

difficulties, will meet the poorest boy at every turn, and yet we educate him in such a manner that he shall enter the world as ignorant of the existence of the methods and facts of science as the day he was born. The modern world is full of artillery ; and we turn out our children to do battle in it, equipped with the shield and sword of the gladiator. It is my firm conviction that the only way to remedy it is to make the elements of physical science an integral part of primary education. I have endeavored to show you how that may be done for that branch of science which it is my business to pursue ; and I can but add, that I should look upon the day when every schoolmaster throughout the land was a centre of genuine, however rudimentary, scientific knowledge, as an epoch in the history of the country.

THOMAS H. HUXLEY.

ON READING WISELY.

To stuff our minds with what is simply trivial, simply curious, or that which at best has but a low nutritive power, this is to close our minds to what is solid and enlarging and spiritually sustaining. . . . I think the habit of reading wisely is one of the most difficult habits to acquire, needing strong resolution and infinite pains ; and I hold the habit of reading for mere reading's sake, instead of for the sake of the stuff we gain from reading, to be one of the worst and commonest and most unwholesome habits we have. Why do we still suffer the traditional hypocrisy about the dignity of literature, — literature, I mean, in the gross, which includes about equal parts of what is useful and what is useless? Why

are books as books, writers as writers, readers as readers, meritorious and honorable, apart from any good in them, or anything that we can get from them? Why do we pride ourselves on our powers of absorbing print, as our grandfathers did on their gifts in absorbing port, when we know that there is a mode of absorbing print which makes it impossible we can ever learn anything good out of books? Our stately Milton said, in a passage which is one of the watchwords of the English race, "As good almost kill a man as kill a good book." But has he not also said that he would "have a vigilant eye how books demean themselves as well as men, and do sharpest justice on them as malefactors"? Yes! They do kill the good book who deliver up their few and precious hours of reading to the trivial book; they make it dead for them; they do what lies in them to destroy "the precious life-blood of a master spirit, embalmed and treasured up on purpose to a life beyond life"; they "spill that seasoned life of man preserved and stored up in books." For in the wilderness of books most men, certainly all busy men, must strictly choose. If they saturate their minds with the idler books, the "good book," which Milton calls "an immortality rather than a life," is dead to them: it is a book sealed up and buried.

FREDERICK HARRISON.

THE SCHOOL IN HISTORY.

THE school is not one of the cardinal institutions of civilization, but is a supplementary special institution designed to re-enforce one or more of the cardinal institutions in their educative functions. Thus, in China it

has supplemented the functions of a patriarchal state by preparing officials for the civil service; in Persia it fitted youth for military service; in India it perpetuated the rule of the Brahmin caste, or the Hindoo church; in Judea it supplemented the family and the theocratic rule; in Athens, during the time of the Sophists, it educated youth for politics or for influence in a democratic state; while in Sparta it educated for military and civil functions necessary to a rigid aristocracy, whose constitution required the enslavement of a conquered race. The pedagogy common to all Greek states trained the bodily form through the pentathlon into gracefulness and strength, so as to express the highest idea of the Greek religion; namely, the belief that the gods were beautiful forms, and that man could become divine through beauty. In Phœnicia the school education fitted youth for manufactures and commerce, teaching him writing and arithmetic, and morally disciplining him to despise home, and love daring adventures in distant voyages.

In more modern states we find school education accented by the predominant institutions. In early Protestantism the reading of the Bible and religious psalmody was most essential, because the chief idea of the Reformation was the substitution of private judgment, enlightened by reading of divine revelation, in the place of the authority of a hierarchy. Jesuit instruction, on the other hand, established to counteract the influence of Protestant schools, laid the greatest stress on supervision and espionage, on casuistry and the art of defending the dogma against all attacks, and on unquestioning obedience to authority. The more re-

cent forms of school education are more comprehensive, and emphasize far more the preparation for civil society, or for what is useful to the individual career of the citizen, as well as what fits him for the development of his common human nature.

WM. T. HARRIS.

THE mind is like a trunk. If well packed, it holds almost everything ; if ill packed, next to nothing.

J. C. HARE.

TRAINED TEACHERS.

By law, every teacher and every assistant-teacher in the common schools of Austria-Hungary must obtain a certificate of qualification at the teachers' seminary. A similar law prevails in France, Germany, and most of the European countries ; and yet the United States, which expends more money on public education than any three of these monarchies united, permits tens of thousands of teachers to teach in the common schools, with no better certificates than the licenses of county commissioners or country superintendents who may never have taught a day in their lives, and who are just as qualified to issue a certificate to a man to navigate a ship as to teach a school. This is all wrong.

It becomes the duty of all teachers, of all patriots, of all educated men, and particularly of the college professors, who are, as a rule, men of learning, to use every effort to spread the normal system, and to compel every teacher in the common schools to obtain a certificate of qualification from a normal school. Then, and not till

then, the United States will show the best and most effective system of public schools in the world ; and the people will receive a full return for all the money expended.

THOMAS HUNTER.

EACH man is a drama in himself ; has to play all the parts in it ; is to be king and rebel, successful and vanquished, free and slave ; and needs a bringing up fit for the universal creature that he is.

ARTHUR HELPS.

CHRISTIANITY AND THE PUBLIC SCHOOLS.

ALL we have to do is for Catholics and Protestants—disciples of a common master—to come to a common understanding with respect to a common basis of what is received as general Christianity, a practical quantity of truth belonging equally to both sides to be recognized in general legislation, and especially in the literature and teaching of our public schools. The difficulties lie in the mutual ignorance and prejudice of both parties, and fully as much on the side of the Protestants as of the Catholics. Then let the system of public schools be confined to the branches of simply common-school education. Let these common schools be kept under the local control of the inhabitants of each district, so that the religious character of each school may conform in all variable accidents to the character of the majority of the inhabitants of each district. Let all centralizing tendencies be watchfully guarded against. Let the Christians of the East, of all

denominations, increase the number and extend the efficiency of all their Christian academies and higher colleges. And let the Christians of the vast West pre-occupy the ground, and bend all their energies in their efforts to supply the rising floods of their incoming population with a full apparatus of high schools and colleges, to meet all possible demands for a higher education. One thing is absolutely certain: Christianity is ever increasing in power, and, in the long run, will never tolerate the absurd and aggressive claims of modern infidelity. The system of public schools must be held in their sphere, true to the claims of Christianity, or they must go, with all other enemies of Christ, to the wall.

ARCHIBALD ALEXANDER HODGE.

THE MAN, NOT THE MIND.

No system of education is complete till it concerns itself for the entire body and all the parts of human life—a character high, erect, broad-shouldered, symmetrical, swift; not *the mind*, as I said, but *the man*. Our familiar phrase, “whole-souled,” expresses the aim of learning as well as any. You want to rear men fit and ready for all spots and crises, prompt and busy in affairs, gentle among little children, self-reliant in danger, genial in company, sharp in a jury-box, tenacious at a town-meeting, unseducible in a crowd, tender at a sick-bed, not likely to jump into the first boat at a shipwreck, affectionate and respectable at home, obliging in a travelling party, shrewd and just in the market, reverent and punctual at the church; not going about, as

Robert Hall said, "with an air of perpetual apology for the unpardonable presumption of being in the world," nor yet forever supplicating the world's special consideration; brave in action, patient in suffering, believing and cheerful everywhere, fervent in spirit, serving the Lord. This is the manhood that our age and country are asking of its educators, — well-built and vital, manifold and harmonious, full of wisdom, full of energy, full of faith.

FREDERIC D. HUNTINGTON.

ENGLISH LETTERS.

It is patent to every careful observer of educational progress in modern times that new interest is constantly awakening in all that pertains to the English language and literature, nor is it possible or necessary to state in which of these two sections of the same general department such interest is the more pronounced. While as to English philology the student's attention is directed to the rapid increase of books and appliances, careful inspection will mark a similar enthusiasm in distinctively literary work. This healthful zeal is seen in all the branches of such work; in history, fiction, biography, in descriptive, philosophical, and miscellaneous prose, and in poetry. One of the special features of this modern development is found in the large variety of suggestion that is given relative to the best methods in which such a study may be conducted, how the academic student or the citizen at large can best secure those helpful results which are supposed to follow from diligent attention thereto. Such volumes as

the "English Men of Letters" series, edited by Morley, or the "American Men of Letters" series, edited by Warner, are of this special character. They are admirably designed, on the one hand, to give a sufficiently scholarly view of English and American letters to satisfy the critical student, and, on the other, so to simplify and vary the subject discussed as to bring it within the province of the readable and popular. Much of the profit and pleasure arising from such a form of intellectual pursuit depends on the particular form of procedure. No department has suffered more than that of English letters, both from the absence of any definite method, and from the application of superficial methods. In no department is a well-adjusted order of study more desirable and feasible.

T. W. HUNT.

EVERY accession man makes to his knowledge enlarges his power.

PAXTON HOOD.

TRUE INTELLECTUAL GROWTH.

ASSUREDLY the true way of intellectual growth is by fencing in some moderate and inviting portion of the general domain, and then to have the mind stay and converse there long enough to become really and thoroughly at home with the included matter, and to get a genuine and lasting relish of the mental climate in its special and peculiar qualities. This, say what you will, is the right method of domesticating the principles of truth and nature in the heart, of binding them up

with the inward quiet sympathies and affections, so that they shall be an abiding love and delight, a perennial spring of life and joy; and when this is done in a small sphere, the mind is then invested with a predisposition to recognize and choose the true and the good wherever it may go; and in that state the more it converses with general knowledge the less it will be blown by presumption and conceit; whereas, an early and ambitious smattering in many things is pretty sure to bring on that sort of chronic indigestion which converts nourishment to wind.

HENRY N. HUDSON.

THE STUDY OF GEOMETRY.

It is said that Plato wrote over his schoolroom door, "Let no one ignorant of geometry enter here." And although the anecdote cannot be found in good Greek, and is, therefore, to be considered rather mythical, it deserves to have been true. It is the inscription which is in fact written over all the higher schools of life. Geometry is required for admission into the high schools of nature, and is always taught in nature's infant school. It has been sadly neglected by human teachers since the invention of logarithms and other facilities for arithmetical computation; but it has remained the foundation of learning, and no man has ever arrived at any knowledge, until he first learned from Nature herself, unconsciously perhaps, geometry enough to build it upon. . . .

I would also urge the study of geometry as a source of the purest pleasure. No intellectual resource that we can give our pupils will be to them a more unfailing

spring of delight than the habit of analyzing forms. More than any other intellectual habit, it will blend itself naturally with every holy and reverent view of outward creation as the work of a Divine hand. While arithmetical power is rarely employed, except in actual computations for temporary ends, geometrical power is in constant exercise, in every contemplation of the world around us. As I walked yesterday morning down the banks of the Kennebec, what was it that thrilled my frame with such ever-varying delight? Not merely the refreshing air which breathed upon my cheek; not merely the fragrance which it brought from the field and forest; nor yet the cheerful sounds of animate life and of human labor; nor the various play of light and shade and coloring upon the landscape;—more than all these, it was the perception of beautiful forms that charmed me; the forms of flowers beneath my feet; the arrangement of leaves about the stems of plants, in a symmetry hidden save to a geometrical eye; the undulation of the land; the configuration of the shores; the grouping of the trees, and outlines of the forest; the ripple on the river; the dancing curves of light at the bottom of the clear water; the varying forms of clouds in the sky above me; it was through these various forms that the infinite beauty of the work of God was chiefly revealing itself, and filling me with that exhilaration of faith and indefinable joy.

THOMAS HILL.

VOCAL MUSIC IN PUBLIC SCHOOLS.

To teach a proper use of the voice, and give pupils command of their musical powers until they acquire the

ability to sing any composition of vocal music at sight, should be the aim and object of all instruction in music in public schools. Everything necessary to enable the pupils to do this intelligently should be taught, and whatever is not necessary should be left out until this ability is acquired. The great influence of music, morally, mentally, and physically, will not be fully realized until the time now wasted over the dry mathematics of the notation and theory is spent in keeping constantly before the mind by practice the essential things to be known, together with their true representations.

H. E. HOLT.

SCIENTIFIC RUTS.

THE investigator of the present seeks his salvation, as a rule, in devotion to one science, nay, often to only a part of one science. He looks neither to the right nor to the left, in order that what is going on in his neighbor's field may not prevent him from burying himself in his specialty to his heart's content. We are far from failing to recognize the great value of this absorption to the progress of science; indeed, the unexampled expansion of science would hardly be possible without the self-restraint which the investigator exercises, for the most part of his own free choice, in limiting the field of his work. But it gives rise also to serious alarm. Too exclusive occupation with details obscures our view of the great whole, the understanding of which is the final goal of all our efforts.

“Denn nur der grosse Gegenstand vermag
Den tiefen grund der Menschheit aufzuregen.
Im engen Kreis verengert sich der Sinn.”

And especially in view of the unmistakable tendency of our times, the disposition to combine and specialize all effort, any stimulus to intercourse with workers in other fields of study which prompts us to open our eyes to a wider prospect seems doubly desirable. *Ceteris paribus* he whose scientific work is furthest from that of the mere mechanic will be sure of the greatest success. But he who isolates himself in his work, or who maintains intercourse only with his immediate companions in his own department, is peculiarly exposed to the danger of falling into such petty mechanical labor.

AUGUST WILHELM HOFMANN.

PROSPERITY is a great teacher; adversity is a greater. Possession pampers the mind; privation trains and strengthens it.

WILLIAM HAZLITT.

ANY one who has been educated much in appearance, and lacks capacity, however good his other qualities, cannot be on good terms with himself.

FRIEDRICH JACOBI.

EDUCATION A BIRTHRIGHT.

IN education, the past century has witnessed a progress which fully keeps pace with its other great movements. The grand idea of *universal education* is the creation of this age. Before, the privilege of the few, in this century education has come to be regarded as the right and the duty of all. The great movements for popular education—the Sunday-school and the free school—are born of this age. The church and the state

have alike learned to recognize education as the birth-right of their children, as well as the foundation of their own safety. The recognition of this principle, accompanied by the great national movements for popular education, is perhaps the most significant of all the features which mark this age, in a sense far deeper than any mere form of government, as the age of *democracy*, in which everywhere the *people* are recognized as the supreme power in the state, and the welfare of the people as the chief end of all government. For with this recognition of their power comes the necessity for their education, if on no higher ground, at least as a safeguard against their ignorance.

EDWARD S. JOYNES.

MIND, NOT MATTER.

THE truth is, that the knowledge of external nature, and the sciences which that knowledge requires or includes, are not the great or the frequent business of the human mind. Whether we provide for action or for conversation, whether we wish to be useful or pleasing, the first requisite is the religious and moral knowledge of right and wrong; the next is an acquaintance with the history of mankind, and with those examples which may be said to embody truth and prove by events the reasonableness of opinions. Prudence and justice are excellences of all times and of all places; we are perpetually moralists, but we are geometers only by chance. Our intercourse with intellect, not nature, is necessary; our speculations upon matters are voluntary and at leisure. Physiological learning is of such emergence

that one may know another half his life without being able to estimate his skill in hydrostatics or astronomy ; but his moral and prudential character immediately appears. Those authors, therefore, are to be read at schools that supply most axioms of prudence, most principles of moral truth, and most materials for conversation ; and these purposes are best served by poets, orators, and historians.

SAMUEL JOHNSON.

WORSHIPPING SELF-MADE MEN.

THE too prevalent worship of the self-made man, in this country, deplorable though it be, tempts the boy to despise, as his father possibly may, systematic higher education, and to try to carve out his own future without it. In ninety-nine cases out of a hundred such a boy fails and speedily sinks to the bottom ; never reaches the fame of the great self-made man who was his ideal ; and is finally found on a level with men of whom thirteen do not even make a dozen. But the fact remains that it is a great temptation. College-bred men are too often quoted below par in this country. The river cannot rise higher than its source. Why should the boy think higher education necessary, or even desirable, when at the fire-side, in the press, from the pulpit or the lecture rostrum, on the stump, at the bar,—in fact, everywhere,—the fame of the self-made man is proclaimed.

L. R. KLEMM.

IT is pleasant to think that human nature will always be better and better developed by education, and that at last there will thus be given it the form which best befits it.

MEN who have nothing but memory are but living lexicons, and, as it were, the pack-horses of Parnassus.

THE best way to comprehend is to do. What we learn the most thoroughly is what we learn to some extent by ourselves.

IMMANUEL KANT.

SYSTEMATIC ARRANGEMENT.

A MAN setting out upon a journey may, by carefully selecting only such articles as he will absolutely require, save himself much after-trouble and inconvenience; by careful packing, he may put all that he wishes to take with him into much smaller space than they would otherwise occupy, and by proper arrangement he may have each article so placed as that he can readily find it when wanted. Each of these has its counterpart in education. The subjects taught should be carefully selected according to their importance; they should be regularly arranged according to their natural relations and connections; and they should be so disposed as to be readily available when required.

DAVID KAY.

IT is by pictures and music, by art and song and symbolic representations, that all nations have been educated in their adolescence.

I HOLD that whatever natural rights a human being brings into the world with him at his birth, one right he indubitably brings; namely, the right of education.

THE more you know the more you can save yourself and that which belongs to you, and do more work with less effort.

CHARLES KINGSLEY.

A REASON disciplined to the clear perception of truth, a taste cultivated into an exquisite sense of beauty, a conscience delicately sensitive to right and virtue, will nearly realize our ideal of human excellence.

A. C. KENDRICK.

SUBMISSION TO AUTHORITY.

OBEDIENCE or submission to authority is one of the first and most important things in education ; and unless the child is taught, when young, to curb its desires, and to yield its will to that of another, it will be much more difficult, if not impossible, for it to submit to lawful authority, to reason and conscience, when it is older. He who has never been taught to submit to authority, who has never been trained to obey another, can be but little able to obey himself, to yield the lower to the higher principles of his nature, to exercise self-command and self-control. It is not by self-will or self-assertion, or any form of self-development — development from within — that any one has ever become great, but only by being an humble and submissive learner at the feet of others and in the great school of the world. Further, it is a leading principle of our nature that our powers are called forth by opposition, our faculties developed by antagonism ; and hence, when the motive powers within are deprived of those checks and restraints from without that serve to regulate and to strengthen them, they become weak and languid, or act irregularly, and the individual becomes dull and stupid, or impulsive and passionate. When those who have been over-in-

dulged in childhood and early years come out into the world, they find that they cannot get circumstances to bend to them as before ; and as they have never learnt how, when adverse, they are to be met and overcome, they are at a loss how to deal with them, and are readily brought to a standstill by opposition, or to have recourse to unsuitable or unworthy means to overcome them. A man can never have the full power of his faculties unless he have them well under control, as there would be no force in steam if it were unrestrained and allowed to blow off spontaneously.

DAVID KAY.

THEN HE IS EDUCATED.

TAKING into account both functions of education, we may say that, when a person has stored his mind with all servicable materials, and cultivated his faculties to such an extent that he is able to make a vigorous use of the knowledge he possesses ; when his moral power has become so developed and experienced that he not only has a delicate appreciation of beauty, but his conscience gives its sanction to that which his intelligence dictates ; when his will has been strengthened to such a degree that he is enabled to act with decision, and bear with constancy the strain of difficulty and disappointment ; when he recognizes his relationship to a superior Being, and realizes that his every action may have an influence not only for time, but for eternity ; and lastly, when his mind has acquired such keen susceptibility to the beauties both of nature and of art, that it adds to his pleasures and softens his cares — then he is educated.

JOSEPH LONDON.

MEN GROWN, NOT MANUFACTURED.

It is difficult to say which is the more pernicious, that system which overstrains the active intelligence of the willing and ambitious boy, or that which fills his mind, while it is yet mainly passive with the results of mature thought, and endows him with a kind of miniature omniscience. Those who survive such methods of training may, doubtless, be very useful agents, very serviceable machines, but they will rarely initiate. With a few exceptions, their minds will be either exhausted or overlaid. That elasticity of spirit which enables a man always to rise to the level of the varying requirements of the day and hour in the family and the state; that free movement of will which is ever ready to encounter more than half way the vicissitudes and exigencies of life; that vivacious intelligence which maintains throughout life an unceasing love of knowledge; that soundness of brain and muscle which reacts on the inner self by giving steadiness to moral purpose, will assuredly not be promoted by forcing more and more subjects into the school curriculum, and applying the pressure of constant examinations by outside authorities. We want men who will be ready for the crises of life as well as for its daily routine of duty, and who will, by their mere manner of encountering even their ordinary work, contribute to the advance of the commonwealth in vigor and virtue. Such men alone are fully competent for all the services which their country may demand from them. Such men may be slowly grown; they cannot be manufactured under a system of pressure.

THE TOUCHSTONE OF REASON.

“TRY all things, hold fast that which is good,” is a divine rule coming from the Father of light and truth ; and it is hard to know what other way men can come at truth to lay hold of it, if they do not dig and search for it as for gold and hid treasure ; but he that does so must have much earth and rubbish before he gets the pure metal ; sand and pebbles and dross usually lie blended with it ; but the gold is nevertheless gold, and will enrich the man that employs his pains to seek and separate it. Neither is there any danger lest he should be deceived by the mixture. Every man carries about him a touchstone, if he will make use of it, to distinguish substantial gold from superficial glitterings, truth from appearances. And indeed the use and benefit of this touchstone, which is natural reason, is spoiled and lost only by assuming prejudices, overweening presumption, and narrowing our minds.

JOHN LOCKE.

IT is of some importance rightly to understand what principle really underlies the divine education of the human race, because we may be sure that such should be our rule in training and educating each individual member.

LESSING.

HE that seeketh the depth of knowledge is, as it were, in a labyrinth, in the which ye farther he goeth, the farther he is from the end.

JOHN LYLY.

NEGLECT OF ACCOMPLISHMENTS.

AMONG the things neglected till *too late* a period are the manners, the cultivation of the voice, —including singing, pronunciation, and all the characteristics of good reading; gaining skill and expedition in the common, necessary, mechanical operations, such as sewing, knitting, writing, and drawing, and acquiring by daily practice a knowledge and a love of domestic pursuits. To these might be added some things which depend almost entirely on the memory, such as spelling; and others which are suited to lay the foundation of a literary taste, such as a judicious course of reading, practice in composition, etc. Those who are to attend to instrumental music, the ornamental branches, and the pronunciation of foreign languages, must commence early.

MARY LYON.

GIRLS, AND QUESTIONS OF THE DAY.

LET our young girls be encouraged to acquaint themselves with the great questions that engage the attention of our government, and especially with those that are discussed in congresses, legislatures, and by the leading papers of the time. Let them know what are the social and educational movements of the day, and what is their bearing on the future of the nation. Great moral principles underlie them all. Talk with them about the sectional wrongs that should be righted, the great reforms that are battling with injustice, the needed legislation that is pending and slowly progressing. These matters can be made as interesting to them as Greek literature or Roman history, as fascinating as the ever-

lasting novel. Brief political monographs, terse, clear, and compact, are prepared by specialists and college professors for the instruction of our young legal voters. Let them enter into the studies of their sisters, who will find some knowledge of the great problems with which a nation wrestles, as powerful a tonic mentally as are physically the out-door games they share with their brothers.

MARY A. LIVERMORE.

THE OFFICE OF LETTERS.

IT is letters which open the intelligence to the light of reason and the heart to the impressions of sentiment. They substitute morality for interest, give pupils polish, exercise their judgment, make them more sensitive and at the same time more obedient to the laws, more capable of grand virtues.

JOSEPH LAKANAL.

EDUCATION DESIRES THE BEST.

EDUCATION is equally solicitous that letters should be cultivated, and that the fields should be ploughed ; that all the sciences and the useful arts should be perfected ; that justice should be administered and that religion should be taught ; that there should be instructed and competent generals, magistrates, and ecclesiastics, and skilful artists and citizens, all in fit proportion.

LA CHALOTAIS.

EDUCATION A PERPETUAL PROCESS.

THE process of education, whether at home or in school, is perpetually going on ; the instructor may

guide, but cannot stop it. Whether he is attentive or neglectful, observation is at work, intellect is developing, character is forming, and all under the most powerful influences from him, whether for good or evil. What he says earnestly, and, above all, what he does, is graving itself on the tenacious memory of childhood. His inconsistencies, partialities, ill-temper, tyranny, selfishness, leave lasting traces. If his dispositions are unfavorable, no check from without can remedy the evil. Parents can control him little. They are managed through their prejudices, at the expense of their children. A superior authority, with the most perfect machinery of inspection, will fail to get the work of good men performed by bad ones. Its laws will be no restraint on him to whom their execution is intrusted; its best systems fruitless, where they cannot insure states of mind according with their spirit. The government of children must be a despotism, and it must have all the vices of a despotism, if we cannot purify the depositaries of supreme power. But, if the instructor be one who is filled with a consciousness of his high duties, how mighty is his influence! He is the fountain of instruction, and the prime source of enjoyment to his pupils. Their little difficulties are brought to him, and in his solution rest. His casual remarks sink into their minds. His opinions on men and things make their way by the double force of authority and affection. His companionship, his sympathy, are above all things delightful. The imitative principle, so powerful in early life, is incessantly in action. The children are daily assimilating parts of his nature, making it one with their own. What an influence is his over their future destiny!

Education is, in truth, the first concern of society, and it ought to have the energies of society's best minds. The Athenians, who had glimpses of whatever was most glorious, did in this matter leave mankind a great example. Teaching was the honorable occupation of their greatest men. The brightest minds of Athenian philosophy were the instructors of Athenian youth; so keenly was the truth felt, that the mature intelligence and moral power acquired in the struggles of a distinguished life, could perform no higher function than that of rearing up the same precious fruits in the rising minds of the community.

JOHN LALOR.

GIVE me for a few years the direction of education, and I agree to transform the world.

G. W. LEIBNITZ.

ALL-AROUND EDUCATION.

LET it be our hope to make a gentleman of every youth who is put under our charge; not a conventional gentleman, but a man of culture, a man of intellectual resource, a man of public spirit, a man of refinement, with that good taste which is the conscience of the mind, and that conscience which is the good taste of the soul. . . . Let our aim be to give a good all-around education, fitted to cope with as many of the exigencies of the day as possible. I had rather the college should turn out one of Aristotle's four-square men, capable of holding his own in whatever field he may be cast, than a score of lop-sided ones, developed abnormally in one direction.

JAMES RUSSELL LOWELL.

THAT which every gentleman that takes any care of his education desires for his son is contained in these four things : Virtue, Wisdom, Good-breeding, and Learning.

JOHN LOCKE.

MEDITATION AND DISCOURSE.

I WILL only say this one thing concerning books: that however it has got the name, yet converse with books is not, in my opinion, the principal part of study; there are two others that ought to be joined with it, each whereof contributes its share to our improvement in knowledge; and these are meditation and discourse. Reading, methinks, is but collecting the rough materials, amongst which a great deal must be laid aside as useless. Meditation is, as it were, choosing and fitting the materials, framing the timbers, squaring and laying the stones, and raising the building; and discourse with a friend (for wrangling in a dispute is of little use) is, as it were, surveying the structure, walking in the rooms, and observing the symmetry and agreement of the parts, taking notice of the solidity or defects of the works, and the best way to find out and correct what is amiss; besides that, it helps often to discover truths and fix them in our minds, as much as either of the other two.

JOHN LOCKE.

THE only true equalizers in the world are books; the only treasure-house open to all comers is a library; the only wreath which will not decay is knowledge; the only jewel which you can carry beyond the grave is wisdom.

J. A. LANGFORD.

HE who sedulously attends, pointedly asks, coolly answers, calmly speaks, and ceases when he has nothing to say, is in possession of the best requisites of a good converser.

JOHN C. LAVATER.

IT is only knowledge, which, worne with years, waxeth young ; and when all things are cut away with the cicle of Time, knowledge flourisheth so high that Time cannot reach it.

JOHN LYLY.

KNOWLEDGE OF THE SCRIPTURES.

THE knowledge of the Scriptures, which are the ground of our religion, is an essential part of true education in its literary and intellectual aspect. It is a branch of knowledge too high in its claims, whether true or false ; too wide in its bearings, whether historical or religious ; too deep in its intimate connection with all that is deepest in our nature to be ignored in any scheme of education, whether liberal or restricted. In other words, one cannot be called a truly educated man who is ignorant of the Bible.

TAYLER LEWIS.

THE CLASSICS AND DISCIPLINE.

THE processes necessarily undergone by the mind in the study of the ancient languages yield some of the best elements of intellectual discipline. Such are the processes of observation, comparison, analysis and combination, classification and induction, — all requiring direct mental application and forming the power of fixed and concentrated attention, the accuracy of con-

ception and discrimination of judgment which are peculiar to a well-trained mind, and give it the mastery of itself and the objects of its pursuit. I need not minutely unfold this general fact, so familiar to all teachers in its special applications; in the study of the meanings of Greek and Latin words, and a comparison of the way in which they are used in different places, of their various relations by inflexion, and by derivation and composition, and especially the study of their constructions, with the nice habits of analysis, and the clearness of vision it gives, along with an insight into the laws of universal grammar. I cannot but think that such discipline is, on some accounts, better yielded by classical than by scientific studies. All these processes belong, indeed, eminently to science; but is it not rather in the investigations and discoveries of the philosopher in his study than in the efforts of youth in the lecture-room that they exist? The young student is furnished with the results of scientific research; he gains valuable knowledge, which is essential to a well-educated man; but the knowledge can turn to discipline only when the things of which he reads or hears come into direct contact with his own mind, and become the object of his observation and comparison, his own classification and induction. But in the languages, though words are the signs of things, they are in one sense things themselves; they are ever present to the student, and directly used by his own senses and mind, seen and observed, heard and spoken; he must needs examine them himself, and himself compare, distinguish, analyze, and construct them.

CULTURE OF THE WILL.

IN the moral sphere again, will stands pre-eminent. It is this that we have to cultivate. In the religious sphere we have, following at once Aristotle and the Christian doctrine, to direct the will and to fix it in the contemplation of the divine. It can ultimately find satisfaction for its restless activity only in spiritual ideas and in God. Comparatively little value is to be attached by the educator to moral instruction, save in so far as it is directed and inspired by religion. It is this marriage of the moral and the spiritual that produces what may be denoted by one name, — the ethical life. The discipline of the will in mere understanding and knowing contributes also its share to true ethical discipline. The unity of educational result may be in truth summed up in the single word ethical. Our aim in the school, therefore, is an ethical aim, and all we do is of true value only in so far as it contributes to this, — the final cause of all our teaching. By keeping this purpose steadily in view we alone truly educate a human being. Unity of purpose and method, both in the intellectual and moral sphere, is thereby secured. It is some such unity of purpose and method which the study of the philosophy of education must give, if it is to supply the place of native inspiration to the teacher.

S. S. LAURIE.

WERE there neither soul, heaven, nor hell, it would still be necessary to have schools for the sake of affairs here below, as the history of the Greeks and the Romans plainly teaches.

MARTIN LUTHER.

NOT RULES, BUT CHARACTER.

I HAVE very little faith in rules of style, but I have unbounded faith in the virtue of cultivating direct and precise expression. It is not everybody who can command the mighty rhythm of the greatest masters of human speech; but every one can make reasonably sure that he knows what he means, and whether he has found the right word. It has been said a million times that the foundation of right expression in speech or writing is sincerity. It is as true now as it has ever been, and it is not merely the authors of books who should study right expression. It is a part of character. As somebody has said, by learning to speak with precision you learn to think with correctness; and firm and vigorous speech lies through the cultivation of high and noble sympathies.

JOHN MORLEY.

THE GREAT REGENERATOR.

EDUCATION in the widest sense of the word is the great regenerator of human society. To it we must owe the intellectual habits we form, the power which the reason and conscience have over the will, and the strength we possess to regulate the desires and to subdue the passions.

J. D. MORELL.

SHAMEFUL INEFFICIENCY.

THIS question, whether we should be taught the classics or the sciences, seems to me, I confess, very like a dispute whether painters should cultivate drawing or coloring, or, to use a more homely illustration, whether

a tailor should make coats or trousers. I can only reply by the question, — why not both? Can anything deserve the name of a good education which does not include literature and science too? If there were no more to be said than that scientific education teaches us to think, and literary education to express our thoughts, do not we require both? and is not any one a poor, maimed, lop-sided fragment of humanity who is deficient in either? We are not obliged to ask ourselves whether it is more important to know the languages or the sciences. Short as life is, and shorter still as we make it by the time we waste on things which are neither business, nor meditation, nor pleasure, we are not so badly off that our scholars need be ignorant of the laws and properties of the world they live in, our scientific men destitute of poetic feeling and artistic cultivation. I am amazed at the limited conception which many educational reformers have formed to themselves of a human being's power of acquisition. The study of science, they truly say, is indispensable; our present education neglects it. There is truth in this, too, though it is not all truth, and they think it impossible to find room for the studies which they desire to encourage, but by turning out, at least from general education, those which are now chiefly cultivated. How absurd, they say, that the whole of boyhood should be taken up in acquiring an imperfect knowledge of two dead languages. Absurd indeed: but is the human mind's capacity to learn measured by that of Eton and Westminster to teach? I should prefer to see these reformers pointing their attacks against the shameful inefficiency of the schools, public and private, which pretend

to teach these two languages and do not. I should like to hear them denounce the wretched methods of teaching, and the criminal idleness and supineness which waste the entire boyhood of the pupils without really giving to most of them more than a smattering, if even that, of the only kind of knowledge which is even pretended to be cared for. Let us try what conscientious and intelligent teaching can do, before we presume to decide what cannot be done.

JOHN STUART MILL.

THE CORNER-STONE.

THE very corner-stone of an education intended to form great minds must be the recognition of the principle that the object is to call forth the greatest possible quantity of intellectual power, and to inspire the intensest love of truth.

JOHN STUART MILL.

INSPIRATION OF CURIOSITY.

CURIOSITY must be awakened ere it can be satisfied; nay, once awakened, it never fails in the end fully to satisfy itself; and it has occurred to me, that by simply laying before the workingmen of the country the "story of my education," I may succeed in first exciting their curiosity, and next, occasionally at least, in gratifying it also. They will find that by far the best schools I ever attended are schools open to them all; that the best teachers I ever had are (though severe in their discipline) always easy of access; and that the special *form* at which I was, if I may say so, most successful as a pupil, was a form to which I was drawn by

a strong inclination, but at which I had less assistance from my brother men, or even from books, than at any of the others. There are few of the natural sciences which do not lie quite as open to the workingmen of Britain and America as geology did to me.

HUGH MILLER.

THE SHELL AND THE KERNEL.

ASSUREDLY one fact which does not directly affect our own interest considered in itself, is no better worth knowing than another fact. The fact that there is a snake in a pyramid, or the fact that Hannibal crossed the Alps, are in themselves as unprofitable to us as the fact that there is a green blind in a particular house in Threadneedle Street, or the fact that a Mr. Smith comes into the city every morning on the top of one of the Blackwall stages. But it is certain that those who will not crack the shell of history will never get at the kernel. Johnson, with hasty arrogance, pronounced the kernel worthless, because he saw no value in the shell. The real use of travelling to distant countries, and of studying the annals of past times, is to preserve men from the contraction of mind which those can hardly escape whose whole communion is with one generation and one neighborhood; who arrive at conclusions by means of an induction not sufficiently copious, and who therefore constantly confound exceptions with rules, and accidents with essential properties. In short, the real use of travelling and of studying history, is to keep men from being what Tom Dawson was in fiction and Samuel Johnson in reality.

THOMAS BABINGTON MACAULAY.

CONVERSATION AND TRAVEL.

FOR learning to judge well and speak well, whatever presents itself to our eyes serves as a sufficient book. The knavery of a page, the blunder of a servant, a table witticism, — all such things, are so many new things to think about. And for this purpose, conversation with men is wonderfully helpful, and so is a visit to foreign lands to bring back the customs of those nations and their manners, and to whet and sharpen our wits by rubbing them upon those of others.

MICHEL MONTAIGNE.

EDUCATION alone can conduct us to that enjoyment which is at once best in quality and infinite in quantity.

HORACE MANN.

A THIRD KIND OF KNOWLEDGE.

AFTER the severity with which science was for so many ages treated by literature, I cannot wonder that science now retaliates and treats literature with contempt. I only have to say on the relative claims of science and literature what the great Dr. Arnold said: "If I had to choose, I would rather that a son of mine believed that the sun went round the earth, than that he should be entirely deficient in knowledge of beauty, of poetry, and of moral truth." I am glad to think that one may know something of these things and yet not believe that the sun goes round the earth. But of the two, I for one, am not prepared to accept the rather enormous pretensions that are nowadays made some-

times for physical science as the be-all and end-all of education. Next to this, we know that there is a great stir on behalf of technical and commercial education. The special needs of our time and country compel us to pay a particular attention to this subject. Here knowledge is business, and we shall never hold our industrial pre-eminence, with all that hangs upon it, unless we push on scientific, technical, and commercial education with all our might. But there is — and now I come to my subject — a third kind of knowledge, which, too, in its way, is business. There is the cultivation of the sympathies and imagination, the quickening of the moral sensibilities, and the enlargement of the moral vision. That is, I take it, the business and function of literature.

JOHN MORLEY.

THE HIGHEST PERFECTION.

THE end of all learning is to repair the ruins of our first parents by regaining to know God aright, and out of that knowledge to love him, to imitate him, to be like him, as we may the nearest by possessing our souls of true virtue, which being united to the heavenly grace of faith, makes up the highest perfection. But because our understanding cannot in this body found itself but on sensible things, nor arrive so clearly to the knowledge of God and things invisible, as by orderly conning over the visible and inferior creature, the same method is necessarily to be followed in all discreet teaching. And seeing every nation affords not experience and tradition enough for all kinds of learning, therefore we are chiefly taught the language of those people who

have at any time been most industrious after wisdom ; so that language is but the instrument conveying to us things useful to be known. And though a linguist, should pride himself to have all the tongues that Babel cleft the world into, yet if he have not studied solid things in them, as well as the words and lexicons, he were nothing so much to be esteemed a learned man as any yeoman or tradesman completely wise in his mother dialect only.

JOHN MILTON.

THE better a man is, the greater his ardor in the preservation of learning ; for he knows that of all plagues ignorance is the most pernicious.

PHILIP MELANCHTHON.

GRAMMATICAL STUDIES.

GRAMMATICAL studies, although they do not necessarily impart the power of expression so effectually as the imitation of the great models, furnish the student with the means of entering into the secrets of composition, of exploring the mysterious laws of creative genius, and of submitting his own productions to the control of reason and of established principles. It is then that theory becomes a useful auxiliary to practice.

A familiarity with the national grammar will be the best preparation for a similar study in the foreign language, as the learner will find in the grammar of that language the same technical denominations and the same definitions. It also assists in translating from the native into the foreign tongue, because, in order to ascertain what is the foreign expression corresponding to

the native, one must know the nature of the words to be translated and their functions in the sentence.

C. MARCEL.

APPLIED THOUGHT.

THE test of real and vigorous thinking, the thinking which ascertains truths instead of dreaming dreams, is successful application to practice. Where that purpose does not exist to give definiteness, precision, and intelligible meaning to thought, it generates nothing better than the mystical metaphysics of the Pythagoreans, or the Vedas. With respect to practical improvement, the case is still more evident. The character which improves human life is that which struggles with natural powers and tendencies, not that which gives way to them. The self-benefiting qualities are all on the side of the active and vigorous character.

JOHN STUART MILL.

NEVER ENDING.

WE all know that the business of education, in its widest sense, is co-extensive with a man's life; that it begins with the first moment of life and ends with the last; and that it goes on in every combination of place, company, and circumstance in which a man may voluntarily station himself, or into which he may be casually thrust.

DAVID MASSON.

A STUDENT should be as frugal of his time as a miser of his money; should save it with as much care, and spend it with as much caution.

JOHN MASON.

PHYSICAL CULTURE.

EVIDENTLY, nothing can be more personal, more literally and strictly vital, than bodily health. It is the first and the perpetual condition of success. In any enterprise there are primary and secondary conditions affecting the result. In making a voyage, it is necessary first of all to have a ship that will float and hold together till the port is gained ; it may spread more or less canvas, be manned by few or many sailors, be navigated with more or less skill, be fast or slow, be driven by wind or steam, — these are secondary matters. The ship itself, staunch enough to resist the waves, is the primary condition of the voyage. So in this enterprise and voyage of life, a body sound enough to hold together till the port of threescore and ten is attained comes first in all wise and logical consideration. Talents, learning, aptitude, good chances, energy, — these, according to the degree, affect the voyage, and make it smooth or rough, quick or slow ; but they do not determine whether or not there shall be a voyage. I do not say that these are to be regarded lightly, or other than as great helps ; but I affirm that, without bodily health, they are in vain so far as achievement is concerned. Energy, purpose, culture, enthusiasm, thrift, — these are the engine that propel the man ; but an engine requires first of all proper bearings, a frame stout enough to endure the strain of its vibrations, and to convert its energy into steady motion. Professor Huxley goes too far, however, as he is very prone to do, when he says, “Give a man a good deep chest and a stomach of which he never knew the existence, and a boy must succeed

in any practical career." For it is a fact that a vast number of very worthless beings fulfil these conditions, — "animated patent digesters," Carlyle calls them, — whose only achievements are the consumption of food and oxygen. Brain and race and training have something to do with success in practical careers. The captain on the bridge, the pilot at the wheel, and the engineer at the lever, are conditions of the successful voyage, though the staunchness of the ship may be the primary condition.

It needs but a glance, however, at the men who have succeeded in any department to perceive that, as a rule, they have good bodies. I do not say that all men who have achieved success have lived long, or been free from disease; but I assert that it is impossible to name a man great in any department of life, who did not possess what a physician would call a strong vitality. Many great men have died early and endured life-long disease; but a close physiological examination would show that they were largely endowed with nervous energy, and usually with a good muscular system. I grant the rare exception, as a skiff may by good luck cross the Atlantic. Nature is not blind. She does not put great engines into weak ships. There is a fallacy in the common remark that the mind is too great for the body. A great mind may overwork and tear in pieces even a good body; but, for the most part, any body properly used and superintended is strong enough to uphold and do the work of the mind lodged in it. Man is one; no line can be drawn between the working functions of body and mind. A part of all mental action is also physical action. Will is also a matter of

nerves, energy is graduated by the blood, and the finest thought stands with one foot upon tissue of brain. By its very definition, high thought and large achievement imply a strong physical basis.

* * * * *

A fine engine is favorable to the speed and safety of the voyage ; but quite as much depends upon the build of the vessel, and even more upon how both are handled.

T. T. MUNGER.

HIGH IDEALS.

WHEN the fancy is devoted to its intended use, it helps to cheer, to elevate, to ennoble the soul. It is in its proper exercise when it is picturing something better than we have ever yet realized, — some grand ideal of excellence, — and sets us forth on the attainment of it. All excellence, whether earthly or spiritual, has been attained by the mind keeping before it and dwelling upon the ideas of the great, the good, the beautiful, the grand, the perfect. The tradesman and mechanic attain to eminence by their never allowing themselves to rest till they can produce the most finished specimens of their particular work. The painter and sculptor travel to distant lands that they may see, and, as it were, fill their eye and mind with the most beautiful models of their arts. Poets have had their yet undiscovered genius awakened into life as they contemplated some of the grandest of nature's scenes ; or, as they listened to the strains of other poets, the spirit of poetry has descended upon them, as the spirit of

inspiration descended upon Elisha while the minstrel played before him. The soldier's spirit has been aroused, more than even by the stirring sound of the war-trumpet, by the record of the courage and heroism of other warriors. The fervor of one patriot has been created as he listened to the burning words of another patriot; and many a martyr's zeal has been kindled at the funeral pile of other martyrs. In this way, fathers have handed down their virtues to their children; and parents have left their offspring a better legacy in their example than in all their wealth; and those who could leave them nothing else, have in this example left them the very richest legacy. In this way the good men of one age have influenced the characters of the men of another; and the deeds of those who have done great achievements have lived far longer than those who performed them, and been transmitted from one generation to another.

JAMES McCOSH.

THOSE who would train the young mind to its highest capacity must furnish to the young the records of deeds of heroism, of benevolence, of self-sacrifice, of courage to resist the evil and maintain the good.

JAMES McCOSH.

WANTED: WELL-BALANCED MINDS.

THE want of well-balanced minds is a serious fault of this age. Inventors, or would-be inventors, are found, who spend years of time and large sums of money upon an insane attempt to produce a result that any respect-

able scholar in mechanics or chemistry could have told them in five minutes could never be obtained. Mathematicians are found, who, though experts in their favorite studies, are nevertheless useless in the world, for want of the proper training and development of other faculties. Lawsuits in numberless cases are entered upon and fought through to the bitter end (frequently terminating like the famous case brought before Mr. Justice Monkey, concerning the cheese), simply from a misunderstanding, or from a wrong use or a wrong interpretation of language. Education should aim to produce well-balanced minds, not erratic geniuses.

WILLIAM A. MOWRY.

CONCENTRATION OF PURPOSE.

DISTRACTION of pursuit is the rock on which most unsuccessful persons split in early life. Nine men out of ten lay out their plans on too vast a scale; and they who are competent to do almost anything do nothing, because they never make up their minds distinctly as to what they want or what they intend to be. Hence the mournful failures we see all around us in every walk of life. Behold a De Quincey, with all his wondrous and weird-like powers, his enormous learning and wealth of thought, producing nothing worthy of his rare gifts! See a Coleridge, a man of Shakesperian mould, possessing a creative power of Titanic grasp, and yet, for want of concentration, fathoming among all his vagrancies no foundation, filling no chasms, and of all his dazzling and colossal literary schemes not completing one! The heir

of eternity scorning to be the slave of time! Feeling that he has all the ages to work in, he squanders the precious present; so he lets his dreams go by ungrasped, his magnificent promises unrealized; and his life may be summed up in the words of Charles Lamb, who writes to a friend: "Coleridge is dead, and is said to have left behind him above forty thousand treatises on metaphysics and divinity, not one of them complete!"

WILLIAM MATHEWS.

OVERWORKED TEACHERS.

I NEVER look at a group of teachers such as are employed in the colleges for girls, but I am reminded of the expression of St. Ambrose, — "the noble army of martyrs." The work of a teacher should be such as does not kill, for the value of human life is quite as great in the case of a teacher as in that of the student.

The pleasant smile with which a young teacher greets her class as she enters upon her duties should become more serene, more inspiring at middle life. But how can it be? I find that the number of students to one teacher is usually fifty! The amount of work that teachers do is enormous. There seems to be no "getting through." They work five or six hours a day, and then take to their rooms the written examinations and problems for their evening recreation. Besides, a good teacher does infinitely higher work outside of tutorial hours. I have sometimes looked at the variety of work done for some young girl, — the careful watching over her health, the good counsel given in morals, the patient endurance with loose mental habits, — and I have said

to myself, "How little that parent knows the enormous return which he gets for his moneyed investment!" We are constantly told that too many women become teachers. Yes; but the number would not be too great if fewer students were put into the hands of one teacher. A teacher should not cease to be a student; she cannot, with safety; she should have time for new acquirements. I would not say give time by lengthening vacations, but I would say give time by lessening the number of students. A young girl needs the companionship in her classes of a few, but the teacher should know each pupil individually. According to my own idea, the proper number for good class-work is ten; but when I asked a professor of Cornell how many he thought best for class and professor, he said, "Four." Given a small class and a teacher of any magnetism, and there need be no required attendance.

MISS MARIA MITCHELL.

LET our pupil be provided with things; words will follow only too fast.

PHILOSOPHY is that which teaches us to live.

MICHEL MONTAIGNE.

INDUSTRIAL SCHOOLS NEEDED.

"INDUSTRIAL education," says a recent writer, "is demanded by every principle upon which our general educational system is based." We must pay a fair price for it. We cannot expect frugality, industry, and skill when we have taken no means to secure them. When

England became conscious of her inferiority, she established her art and science schools, and has made such giant strides in art-production, that the French have been obliged to redouble their efforts in order to retain their traditional superiority. We are in the condition England occupied thirty years ago. What shall America do? We have found that general literary education will not answer this need. Our schools are admirable, numerous, expensive, and yet we stand at the bottom of all civilized nations in everything relating to industrial education. This is a question that concerns us all,—the buyer, the seller, the worker, the poor, and the rich. It is a public question, for our arts are passing into the hands of aliens, and our markets into the control of foreigners.

ARTHUR MACARTHUR.

PRESUMPTION OF BRAINS.

I AM not claiming that the old schools were altogether better than the new ; but there was in them the one thing needful which the new schools are liable to miss ; namely, the necessity for thought and individual self-activity on the part of the child. I tell you what it is, fellow teachers, there is a presumption at the start that the child has brains. It is safe, also, to assume that he has used that organ to some extent and in more directions than one, before coming to school ; and he must be compelled to use it again, and to use it constantly. This presumption will enable you to skip many of the methods, and to lighten and shorten your work. And in the rare instances where the presumption does not hold, and in

so far as the presumption does not hold, you still have the elaborate methods "adapted to idiots."

And there is another presumption of brains ; namely, in the teacher. A teacher with brains and pupils with brains we have a right to expect, and if we do, we may save ourselves some of the labor. For example, the superintendent need not feel obliged to mark out from day to day all that every teacher in every school is expected to do with every child. The teacher is presumed to have brains ; the child is presumed to have brains. Let them be used.

A. P. MARBLE.

WHICH? A FARCE OR A TRAGEDY?

A POPULAR government, without popular information or the means of acquiring it, is a farce or a tragedy, or both. Knowledge will govern ignorance ; and a people who mean to be their own governors must arm themselves with the power which knowledge gives.

JAMES MADISON.

THE PILGRIMS AND EDUCATION.

IN 1647, when a few scattered and feeble settlements, almost buried in the depths of the forest, were all that constituted the colony of Massachusetts ; when the entire population consisted of twenty-one thousand souls ; when the external means of the people were small, their dwellings humble, and their raiment and subsistence scanty and homely ; when the whole valuation of all the colonial estates, both public and private, would hardly equal the inventory of many a private

individual at the present day ; when the fierce eye of the savage was nightly seen glaring from the edge of the surrounding wilderness, and no defence or succor was at hand,—it was then, amid all these privations and dangers, that the Pilgrim Fathers conceived the magnificent idea of a free and universal education for the people. And amid all their poverty they stinted themselves to a still scantier pittance ; amid all their toils they imposed upon themselves still more burdensome labors ; amid all their perils they braved still greater dangers, that they might find the time and the means to reduce their grand conception to practice. Two divine ideas filled their great hearts : their duty to God and to posterity. For the one they built the church ; for the other they opened the school. Religion and knowledge ! two attributes of the same glorious and eternal truth, and that truth the only one on which immortal or mortal happiness can be securely founded.

HORACE MANN.

MOTHER IDEAS.

THE fundamental data of knowledge, what Pestalozzi calls “mother ideas,” are those primal notions of things that come to us through the senses. The child must be put into right relationship with nature, and his knowledge of distance, direction, plants, animals, minerals, industries, commerce, political economy, and history must rest upon personal observation. Physiology cannot be successfully taught without the skeleton, nor physics and chemistry outside of the laboratory. The mind brought into proper relation to nature, to things,

to objects of sense, is allured to activity, gratified, fed, developed, educated. Learning becomes a perennial and exhaustless source of joy. But an attempt to teach science from books before the preliminary ideas have been made familiar by observation is not only futile, but destructive of the powers of the mind. Many a child is ruined for life by the deadening process of cramming his memory with words of whose meaning he is ignorant. Words are but symbols, and are chiefly valuable as reviving the memory of past experiences, or of putting into convenient and orderly shape the processes of our own thinking; or, at best, of stimulating the mind to put itself, by its own energies, into the same state as that occupied by the writer. As a general law, words should come after ideas; the child should learn things before he learns about things; he should derive all his ideas of number by counting, combining, separating, dividing, weighing, and measuring things; he should not be taught to read until he has ideas and thoughts, and can embody them in sentences of his own structure. Books should supplement, and not precede, oral instruction. Facts should precede principles; processes come before rules. Grammar and rhetoric should always follow practical language; literature should comprise the reading of the authors, and not merely reading about them; foreign languages should be learned by use, and not from grammar. Geography should, as far as possible, be learned from travel, and psychology from introspection. This great law of nature — the imperative necessity of knowledge at first hand — has been repeated by all the great reformers in educational methods, — by Montaigne, Rous-

seau, Locke, Comenius, Pestalozzi, and Froebel, — and is so patent as to command at once the assent of every thoughtful mind; and yet it is ruthlessly violated every day, nearly everywhere, and, I might almost say, by nearly everybody. And Nature avenges herself by blinding the teachers who do it, and by stupefying the minds of their victims. The school, which should be a seminary, a place of seed-sowing, becomes a charnel-house, — the burial place of fond hopes and youthful aspirations.

The meagre results that often issue from long years of schooling, the vast number of pupils that drop out of the lower grades, the few that find their way to college, the spirit of indifference to learning that pervades so many educational institutions, the oft-repeated criticism of the public-school system for its lack of practical results, the wide-spread agitation in favor of industrial training, and the bitter complaint of many distinguished men as to how they were educated, all point to a real defect in our system of education. It is the part of wisdom to locate the evil, if possible, and then to remove it.

THOMAS J. MORGAN.

THE purpose of instruction is to carry forward intelligences to the farthest point they are capable of attaining.

NICOLE.

CONVERSATION A FINE ART.

To teach how to talk well should be the constant aim of both home and school training. Conversation should

be regarded not merely as an art, but as a fine art, indeed the noblest of the fine arts; and therefore should be cultivated with the zest of the amateur in painting and sculpture. Carefully practised, it becomes a prime educator, awakening curiosity, sharpening perception, cultivating attention, quickening both the memory and imagination, and developing versatility, tact, and vivacity. In view of the range and grandeur of its subjects, the greatness of its influence, and the brilliancy of its victories, speech is the grandest of *all* arts. The leaders of men in every age have gained their wide sway by this divine gift of speech. The greatest triumphs of truth are won by the tongue. Though it is "a little member," it justly "boasteth great things."

B. G. NORTHROP.

TWILIGHT REGIONS.

THE greatest minds have but a limited range of intelligence. In all of them there are regions of twilight and shadow; but the intelligence of the child is almost wholly pervaded by shadows; he catches glimpses of but few rays of light. So everything depends on managing these rays, on increasing them, and on exposing to them whatever we wish to have the child comprehend.

NICOLE.

HISTORY AND PRACTICAL KNOWLEDGE.

It is only when the understanding can deal clearly with occurrences, their origin and consequences, deduce the general from the particular, and comprehend the

spirit of the nations in every period, that history becomes anything more than mere memorizing, and is a real training for the mind. If it does not communicate a knowledge of that which alone, amidst all the changes of humanity, is entitled to honor and imitation, and of the truth that evil, however much it may prosper for a little time, ultimately perishes, or even if it endures to posterity, may last for centuries as a warning, branded with contempt ;— if this knowledge does not produce a pure condition of the moral nature, including in itself all that humanity honors and ennobles, and realizing it, whenever possible, in deeds ;— and if, lastly, practical acuteness is not, from this knowledge of previous experience, joined with the wisdom gained, so far as is consistent with that wisdom :— then all historical learning, even the profoundest, must remain mere dead knowledge.

NIEMEYER.

TRAINING OF THE EYE.

THE eye should be trained to accurate vision and to careful and discriminating observation. How many, for the lack of proper training of the senses, “have eyes but see not !” They live in a world of infinite variety and beauty, but they see nothing except such gross objects as are forced upon their attention. . . . Hence it is that nature has no charms for the untrained eye. What a loss of pleasure to human life, in consequence of this voluntary blindness ! Well may these exclaim with “the blind old bard” —

“ Seasons return ; but not to me returns
Day, or the sweet approach of eve, or morn.”

And not only pleasure, but utility, requires the training of the senses. Observation is an important source of education. The immediate knowledge of the external world comes to the mind through the sense of sight more than all the other senses. Indeed, every other sense is powerless in dealing with distant objects and their relations to each other. The cultivated eye alone sees these objects as they are, and traces their relations to the universe of matter. Accurate observation has created the science of the material world.

HIRAM ORCUTT.

THE SCIENCES CLOSELY RELATED.

I HOLD that to *understand* thoroughly any branch of science, it is necessary to know much, also, of various kindred sciences. Thus, no one can understand chemistry well, without knowing something also of mechanical philosophy; and no one can be master of the mechanical laws of nature, without much knowledge also of the chemical laws. Each science has various relations to the other; and chemical and mechanical principles are often so intimately blended in the same phenomenon, either of art or nature, that its full and complete explanation must involve both mechanical and chemical considerations. Neither the chemist nor the natural philosopher is competent alone to understand the steam engine. The development of the power of elastic steam is chemical; the application of it to machinery is mechanical. So in the explanation of almost any atmospheric phenomenon, as a tornado, the principles of both these sciences are brought into requisition. In a similar man-

ner, it is impossible to gain a thorough knowledge of any single language without some acquaintance with kindred tongues. It is superfluous to say that no one can understand the philosophy of language without an intimate acquaintance with many languages.

DENISON OLMSTEAD.

CRAMMING.

I do not for a moment deny that much is to be gained from the study of scientific text-books. It would be absurd to do so. What I do deny is, that the reading up of books on science — which is, strictly speaking, a literary study — either is, or can possibly be, a training in scientific method. To receive facts in science on any other authority than that of the facts themselves; to get up the observations, experiments, and comments of others, instead of observing, experimenting, and commenting ourselves; to learn definitions, rules, abstract propositions, technicalities, before we personally deal with the facts which lead up to them; — all this, whether in literary or scientific education, — and especially in the latter, — is of the essence of cramming, and is therefore entirely opposed to and destructive of true mental training and discipline.

JOSEPH PAYNE.

TOO DIFFICULT.

BUT why not study natural science? The whole world is now occupied with physical science. The inquirer and objector both shout in union, "The child cannot begin the study of nature too early nor continue it too long. The whole world is now ready to be interested

with physics and chemistry, with all the varieties of what we call the physical agencies and their relations one to another. Give your son and your daughter the earliest interest in physics, and let them early become familiar with these new sciences which put such a new face on the universe of the present and on the universe of the past. Why not?" Why not? Simply because the time to study physics reflectively, with its wondrous revelations, with its perplexing questions, with its magic and its mystery,—the time has not come until the power of discrimination and reflection is fully formed; and long before this has taken place the mastery of the ancient and modern languages can be achieved. Let natural history occupy the boy and the girl, but let natural science be delayed. Let botany and physiology be mastered so far as either may be said to be a science of observation. Store the believing and gushing mind with facts, but do not, pray do not, perplex the childish and youthful simplicity of your son and daughter with those speculations that stagger the strongest thinkers, and force them to grapple with either the new scepticisms or the new faiths which everywhere obtrude themselves in the form of physical science. First, give them maturity of mind and the power to discriminate and comprehend. Meanwhile, while memory is active and imagination is fresh, while the hopes are full of confident delight for good in the future, delay these puzzling questions and these doubtful inquiries till the mind has been disciplined to grapple with them. Nothing can be more mistaken, it seems to me, than the indecent haste with which young persons nowadays are exercised in our higher schools with what should be

called the great problems of physical science. While I would have them delight in natural history, and occupy their minds and imaginations with these inquiries, and enjoy the results, I would keep back, until the proper time of reflection shall have come, those puzzling inquiries which demand maturity and the disciplined mind before they can be properly met and successfully mastered. But let them study history, and above all, let them breathe the very atmosphere of ancient life by the study of classical literature. Let them study history in its dates, its facts, and its pictures of the past; but for the same reason that I would delay and defer the study of philosophical or metaphysical physics, I would keep them back from all these high-sounding words which we hear at every corner about the science of history, the science of politics, the science of the state, and even the science of ethics and religion.

NOAH PORTER.

My method of learning the Roman language may seem strange, and yet it is very true. I did not so much gain the knowledge of things by the words, as words by the knowledge I had of things.

THE understanding is not a vessel which must be filled, but firewood, which needs to be kindled; and love of learning and love of truth are what should kindle it.

PLUTARCH.

ACTION THE HIGHEST END.

THE will is the highest faculty of the mind, and endeavor the highest development of the will. To this con-

clusion we have come by stages of steady progress, and the proofs are various and united by links and interlacings that cannot be sundered or separated. When Demosthenes was asked what is the most important element in oratory, and replied, "Action, action, action," who can tell how deep his meaning was? He is said not to have sought dramatic effects by physical action, but every sentence of his orations had action for its end. If applied to this feature of his oratory, his reply would be strikingly pertinent. But in the view of the will here set forth, his words have a profounder application still. Action is not only the end of oratory, but the highest end to be sought in every attempt to develop the human mind."

F. B. PALMER.

A PLEA FOR ELECTIVES.

NOBODY who has taught both elective and prescribed studies need be told how the instruction in the two cases differs. With perfunctionary students, a teacher is concerned with devices for forcing his pupils onward. Teaching becomes a secondary affair; the time for it is exhausted in questioning possible shirks. Information must be elicited, not imparted. The text-book, with its fixed lessons, is a thing of consequence. It is the teacher's business to watch his pupils, to see that they carry off the requisite knowledge; their business, then, it soon becomes to try to escape without it. Between teacher and scholar there goes on an ignoble game of matching wits, in which the teacher is smart if he can catch a boy, and the boy is smart if he can know nothing without being found out. Because of this supposed antagonism

of interests American higher education seldom escapes an air of unreality. We seem to be at the opera bouffe. A boy appears at the learning shop, purchases his parcel of knowledge, and then tries to toss it under the counter and dodge out of the door before the shopman can be quick enough to make him carry off the goods. Nothing can cure such folly except insistence that pupil's neglect is not teacher's injury. The elective system points out to a man that he has something at stake in a study, and so trains him to look upon time squandered as a personal loss. Where this consciousness can be presumed, a higher style of teaching becomes possible. Methods spring up unlike formal lectures, unlike humdrum recitations. The student acquires—what he will need in after life—the power to look up a single subject in many books. Theses are written; discussions held; in higher courses, problems of research supersede defined tasks. . . .

But it would be unfair to imply that the new spirit is awakened in students alone. Professors are themselves instructed. The obstacles to their proper work, those severest of all obstacles which come from defective sympathy, are cleared away. A teacher draws near his class, and learns what he can do for it. Long ago it was said that among the Gentiles—people spiritually rude—great ones exercised authority, while in a state of righteousness this should not be so; there the leader would estimate his importance by his serviceability. It was a teacher who spoke, and he spoke to teachers. To-day teacher's dangers lie in the same direction. Always dealing with inferiors, isolated from criticism, by nature not less sluggish than others, through the

honorable passion which they feel for their subject disposed to set the private investigation of it above its exposition, teachers are continually tempted to think of a class as if it existed for their sakes rather than they for its. Fasten pupils to the benches, and nothing counteracts this temptation except that individual conscience, which in all of us is a faculty that will well bear strengthening. It may be just to condemn the dull, the intolerant, the self-absorbed teacher; but why not condemn also the system which perpetuates him? Nobody likes to be inefficient; slackness is largely a fault of inadvertence. That system is good which makes inadvertence difficult and opens the way for a teacher to discover whether his instructions hit. Give students choice, and a professor gets the power to see himself as others see him. . . . There is, therefore, in the new method a self-regulating adjustment. Teacher and taught are put on their good behavior. A spirit of faithfulness is infused into both, and by that very fact the friendliest relation is established between them.

G. H. PALMER.

ELECTIVES AND NATURAL DEFICIENCY.

IN the next place the elective system is the best possible preventive and cure for poor scholarship. I will not say that it is a specific. Our latest school of medicine denies that there are specifics. There certainly are none for deficient brain power, for native levity of intellect, or for a mind enfeebled by moral depravity. But there are not a few minds, of respectable, some of superior, ability, that lack capacity in some one direction. I have known persons susceptible of high culture, in one

case a youth of surpassing genius, who could not comprehend the theorems of solid geometry, or even the formulas of plane trigonometry. It is not uncommon for a young man who has in his boyhood known no language but his own, to show what seems stupidity in the study of the ancient languages, and yet to manifest a superior aptitude for mathematics or philosophy. Now, persistent failure and inferiority in any one department are very apt to break down a student's spirit, to destroy his enterprise, to quench his ambition, and thus to reduce him in the branches in which he might do well to the standard established by his incompetency in those in which he cannot do but ill. Far better is it that he be relieved as early as possible from the need of attempting that in which he cannot excel. The cases of utter and invincible distaste or indifference for certain departments are probably much more numerous than those of native incapacity, and they crave the same treatment. . . . Let a young man choose the branches that he will study ; you can rely upon his putting into them the best work that he can do.

A. P. PEABODY.

KINDLE YOUR OWN FIRE.

As it would be with a man who, going to his neighbor's to borrow fire, and finding there a great and bright fire, should sit down to warm himself and forget to go home, so is it with the one who comes to another to learn, if he does not think himself obliged to kindle his own fire within, and influence his own mind, but continues sitting by his master as if he were enchanted, delighted by hearing.

PLUTARCH.

EXCEPTIONS TO THE RULE.

THERE will always be men whom nothing can keep uneducated, men like Franklin and Bowditch, who can break down every obstacle ; men gifted with such tenacity of resolution, such vigor of thought, such power of self-control, they live on difficulties, and seem strongest when fed most abundantly with that rugged fare ; men that go forth strong as the sun and as lonely, nor brook to take assistance from the world of men. For such no provision is needed. They fight their own battles, for they are born fully armed, terrible from their very beginning. To them difficulty is nothing. Poverty but makes them watchful. Shut out from books and teachers, they have instructors in the birds and beasts, and whole Vatican libraries in the trees and stones. They fear no discouragement. They go the errand God sent them, trusting in him to bless the gift he gave. They beat the mountain of difficulty into dust, and get the gem it could not hide from an eye piercing as Argus. But these men are rare, — exceptions to the rule ; strong souls in much-enduring flesh.

THEODORE PARKER.

INTEREST INDISPENSABLE.

AN interest in study is the first thing which a teacher should endeavor to excite and keep alive. There are scarcely any circumstances in which a want of application in children does not proceed from a want of interest ; and there are perhaps none in which the want of interest does not originate in the mode of teaching adopted by the teacher. I would go so far as to lay it

down as a rule that whenever children are inattentive and apparently take no interest in a lesson, the teacher should always first look to himself for the reason. . . . Could we conceive the indescribable tedium which must oppress the young mind while the weary hours are slowly passing away one after another in occupations which it can neither relish nor understand ; could we remember the like scenes which our own childhood has passed through, we should no longer be surprised at the remissness of the schoolboy "creeping like snail unwillingly to school." . . .

We must adopt a better mode of instruction, by which the children are less left to themselves, less thrown upon the unwelcome employment of passive listening, less harshly treated for little excusable failings ; but more roused by questions, animated by illustrations, interested and won by kindness.

There is a most remarkable reciprocal action between the interest which the teacher takes and that which he communicates to his pupils. If he is not with his whole mind present at the subject, if he does not care whether he is understood or not, whether his manner is liked or not, he will alienate the affections of his pupils, and render them indifferent to what he says. But real interest taken in the task of instruction, kind words and kinder feelings, the very expression of the features and the glance of the eye, are never lost upon children.

PESTALOZZI.

MAN cannot propose a higher and holier object for his study than education and all that pertains to education.

PLATO.

A HAPPY SCHOOL.

THE children very soon felt that there existed in them forces which they did not know; and in particular, they acquired a general sentiment of order and beauty. They were self-conscious; and the impression of weariness which habitually reigns in schools vanished like a shadow from my class-room. They willed, they had power, they persevered, they succeeded, and they were happy. They were not scholars who were learning, but children who felt unknown forces awakening within them, and who understood where these forces could and would lead them; and this feeling gave elevation to their mind and heart.

PESTALOZZI.

To educate children properly ought to be for the teacher only the second part of his undertaking. The first and the most difficult is to perfect himself.

MADAME PAPE-CARPENTIER.

A WORK FOR ETERNITY.

MANY fine things have been said concerning the mission of teachers; but after all that has been said, in all ages, upon the subject, more than justice has not been and never can be done to the theme. We may say with Channing, that there is no office higher than that of a teacher of youth; for there is nothing on earth so precious as the mind, soul, character, of the child; or, in the language of Everett, that the office of the teacher, in forming the minds and hearts of the young, and training up those who are to take our places in life, is all-im-

portant ; or, in the words of President Humphrey, that the schoolmaster literally speaks, writes, teaches, paints for eternity. His pupils are immortal beings, whose minds are as clay to the seal under his hand. But such generalities, however just and true, fail to convey to our minds an adequate or vivid conception, either of the actual or possible results of the teacher's work.

JOHN D. PHILBRICK.

VALUE OF EDUCATIONAL HISTORY.

THE history of education, — Chinese, Persian, Egyptian, Hindoo, Jewish, Greek, Roman, Mediæval, French, German, English, Italian, — presents a field of almost infinite extent, too formidable to be contemplated with equanimity ; and yet there is not, I venture to say, any knowledge of a higher practical value to the educators of the day than this. The great need of the hour, it seems to me, is to ascertain what has been done in the line of educational effort, what plans have succeeded and what have failed, and the conditions under which success or failure has come. General history that records the instinctive or impulsive acts of men has a high order of value ; but of a still higher value must be educational history that records the deliberate plans of the wisest and the best for the good of their kind.

WILLIAM H. PAYNE.

EARLY LINGUISTIC TRAINING.

BUT why not employ the time on the mathematics ? The answer to that inquiry . . . is simply this : that the time for the efficient and successful study of the

mathematics does not come to boys and girls, as they ordinarily present themselves, until after the time has elapsed when the elements of Latin and Greek may be mastered. The premature study of the mathematics in algebra and geometry is not serviceable to the mind. It should be delayed till the mathematical powers have been developed and can be exercised with energy and satisfaction. The time before this may be best employed in acquiring the elements of one or two modern languages. The linguistic comes before the reflective period. The mastery of language, both modern and ancient, comes long before the mathematical sense, if I may so express myself, is developed. Let algebra and geometry, then, be deferred until the time for the successful and satisfactory pursuit of the reflective and intellectual studies is fully reached.

NOAH PORTER.

THE STUDY OF PHYSIOLOGY.

I WOULD therefore have physiology taught to all, as a study of God's designs and purposes achieved ; as a science for which our natural desire after the knowledge of final causes seems to have been destined ; a science in which that desire, though it were infinite, might be satisfied ; and in which, as with perfect models of beneficence and wisdom, our own faculties of design may be instructed. I would not have its teaching limited to a bare declaration of the use and exact fitness of each part or organ of the body. This, indeed, should not be omitted ; for there are noble truths in the simplest demonstrations of the fitness of parts for their simplest

purposes, and no study has been made more attractive than this by the ingenuity, the acuteness, and eloquence of its teachers. But I would go beyond this, and striving, as I said before, to teach *general* truths as well as the details of science, I would try to lead the mind to the contemplation of those general designs, from which it might gather the best lessons for its own guidance.

JAMES PAGET.

READING AND RE-READING.

WE read at once too much and too little. *Multum, non multa*. I have tried to say in many words what the proverb says in three. Without a pedantic exclusion of lesser and lighter matters, let a man or a woman who wishes to claim her natural mental rights and position read mainly the best books, and begin again when the series is ended. Life is not long; but the available list is briefer still. Putting aside the books which give special information or discuss points of theory, a few shelves would hold all the modern master-works; how few the ancient! Yet these are enough. For a good book not only puts the thoughts of its age in the sweetest and highest form, but includes by a natural implication the thousand lesser works contemporary. And these again we read with far more gain and amusement through familiarity with masterpieces. Knowledge of these supplies taste and judgment and standards for the pleasant work of comparison. It is books thus read which "gives growth to youth and pleasure to age, delight at home, make the night go by, and are friends for the road and the country." How modern the words

seem! Yet they tell that one thousand nine hundred years ago there were men who comprehended reading.

E. T. PALGRAVE.

A GOOD education is that which gives to the body and to the soul all the beauty and all the perfection of which they are capable.

PLATO.

THE HEAD AND THE HAND.

A GREEK proverb says: "A mob has no brains"; the meaning doubtless being either that the only brain concerned is that of the leader, or that the units composing the mob have only one brain in common. In either case, disintegration will come the moment each of these units can determine its own motive, instead of being controlled by a motive of another's imposition. For example, in our politics there is a large mobile element, the purchasable factor that has as little self-determining power as the ballast of a sailing vessel. Could each of these "electors" be given the power and the will to do his own thinking, the problem of political education would be solved. Which is better for the citizen, the practical drill of the "primaries," or the serious reading of the "Republic" and the "Laws"? It is no paradox to say that we should learn to swim, *i.e.*, form an idea, pattern, or theory of swimming, before we plunge into the water, to the end that we may safely and thoroughly learn the art of swimming. In other words, we should *know*, to the end that we may *do*. First the head and then the hand; finally, the hand inspired and guided by

the head. In going from the old faith in the potency of ideas and ideals, we have degenerated. We are following false gods.

WILLIAM H. PAYNE.

DEFICIENCIES in true education are the source of delusion and of all transgressions, the chief cause of violations of the laws of the mind.

PHILO.

WE LEARN TO DO BY DOING.

THERE is great outcry against our schools and colleges, caused by the suspicion that they educate children to be above manual labor. This suspicion is founded upon fact, I am sorry to say; but the statement of the fact is not correct. Children are educated *below* manual labor. The vague, meaningless things they learn are not adapted to real work; no effectual habits of labor are formed by rote-learning. The student's desire is too often, when he leaves college, to get a living by means of empty words. The world has little or no use for such rubbish. That man should gain his bread by the sweat of his brow is a curse changed to the highest possible blessing. The clergyman, the lawyer, the physician, the teacher, need the benefit of an early training in manual labor quite as much as the man who is to labor with his hands all his life. Manual labor is the foundation of clear thinking, sound imagination, and good health. There should be no real difference between the methods of our common schools and the methods of training in manual-labor schools. A great

mistake has been made in separating them. All school work should be real work. We learn to do by doing. "Satan finds some mischief still for idle hands to do." The direct influence of real work is to absorb the attention in the things to be done, leaving no room in the consciousness for idleness and its consequent vices. Out of real work the child develops a motive that directs his life work. Doing work thoroughly has a great moral influence. One piece of work well done, one subject well mastered, makes the mind far stronger and better than a smattering of all the branches taught in our schools. School work and manual labor have been for a long time divorced; I predict that the time is fast coming when they will be joined in indissoluble bonds. The time, too, is coming, when ministers will urge upon their hearers the great importance of manual labor as a means of spiritual growth. At no distant date industrial rooms will become an indispensable part of every good school; the work of the head and skill of the hand will be joined, in class-room and workshop, into one comprehensive method of developing harmoniously the powers of body, mind, and soul. If you would develop morality in the child, train him to work.

FRANCIS W. PARKER.

EXPERIMENT AND TRANSITION.

THERE can be little doubt that the educational world is in a period of rapid transition. Correct views of the nature and end of education are becoming prevalent; and in order that educational methods may have a

scientific basis, the physical and mental constitution of man is being subjected anew to careful investigation. The laws governing human development have been largely ascertained, and now give direction to our best teaching. The work of education is no longer left to novices destitute of any training, except an acquaintance with the defective methods by which they were themselves instructed. Teaching is being elevated into a profession, for which intelligence and training are recognized as necessary. There is a breaking away from traditional views and customs. Human reason, unfettered by tradition or the dicta of authority, is everywhere proving all things, and holding fast only that which is good. The present is an age of experiment and investigation. Able minds in all Christian lands are engaged upon educational problems. While all this leaves the educational world in an unsettled condition, it promises well for the future. Within the past few decades, truth has made large conquests in the domain of education. And as we may well judge, both from the lessons of the past and the tendencies of the present, there will come forth from this struggle an education firmly established on a scientific basis, and better adjusted to the conditions of modern life.

F. V. N. PAINTER.

FREEDOM, NOT FORCE.

A FREE mind ought to learn nothing as a slave. The lesson that is made to enter the mind by force will not remain there. Then use no violence towards children; the rather, cause them to learn while playing.

PLATO.

ALTHOUGH one man may possess more capacity than another, yet none can be found who cannot by education be improved at all.

QUINTILIAN.

THE TEACHING OF THE JESUITS.

THE object which the Jesuits proposed in their teaching was not the highest object. They did not aim at developing *all* the faculties of their pupils, but merely the receptive and reproductive faculties. When a young man had acquired a thorough mastery of the Latin language for all purposes, when he was well versed in the theological and philosophical opinions of his preceptors, when he was skilful in dispute, and could make a brilliant display from the resources of a well-stored memory, he had reached the highest point to which the Jesuits sought to lead him. Originality and independence of mind, love of truth for its own sake, the power of reflecting and of forming correct judgments, were not merely neglected,—they were suppressed in the Jesuits' system. But in what they attempted they were eminently successful, and their success went a long way toward securing their popularity.

ROBERT HERBERT QUICK.

RATICH AND ASCHAM COMPARED.

WHEN we compare Ratich's method with that of Ascham, we find that they have much in common. Ratich began the study of a language with one book, which he worked over with the pupil a great many times. Ascham did the same. Each lecture, he says,

would, according to his plan, be gone over a dozen times at least. Both construed to the pupil, instead of requiring him to make out the sense for himself. Both taught grammar, not independently, but in connection with the model book. So far as the two methods differed, I have no hesitation in pronouncing Ascham's the better. It gave the pupil more to do, and contained the very important element, — writing. By this means there was a chance of the interest of the pupil surviving the constant repetition; but Ratich's pupils must have been bored to death. His plan of making them familiar with the translation first was subsequently advocated by Comenius, and may have advantages; but in effect the pupil would be tired of the play before he began to translate it. Then Ratich's plan of going through and through seems very inferior to that of thoroughly mastering one lesson before going on to the next. I should say that whatever merit there was in Ratich's plan lay in its insisting on complete knowledge of a single book, and that this knowledge would be much better attained by Ascham's practice of double translation.

ROBERT HERBERT QUICK.

PHILIP'S TEACHER.

WOULD Philip, king of Macedonia, have wished the first principles of learning to be communicated to his son Alexander, by Aristotle, the greatest philosopher of that age, or would Aristotle have undertaken that office, if they had not both thought that the first rudiments of instruction are best treated by the most accomplished teacher, and have an influence on the whole course?

QUINTILIAN.

SAID a king to his son : "Be diligent in learning all arts, in acquiring all manner of knowledge. If you come to need, then they will be your capital ; if you do not, they will always be accomplishments."

RUECKERT.

ENRICHING THE MIND.

THE mind is but a barren soil ; a soil which is soon exhausted, and will produce no crop, or only one, unless it be continually fertilized and enriched with foreign matter.

When we have had continually before us the great works of art to impregnate our minds with ideas, we are then, and not till then, fit to produce something of the same species. We behold all about us with the eyes of those penetrating observers whose works we contemplate ; and our minds, accustomed to think the thoughts of the noblest and brightest intellects, are prepared for the discovery and selection of all that is great and noble in nature. The greatest natural genius cannot subsist on its own stock ; he who resolves never to ransack any mind but his own will be soon reduced from mere barrenness to the poorest of all imitations ; he will be obliged to imitate himself, and to repeat what he has before often repeated. When we know the subject designed by such men, it will never be difficult to guess what kind of work is to be produced.

A MIND enriched by an assemblage of all the treasures of ancient and modern art will be more elevated and fruitful in resources, in proportion to the number

of ideas which have been carefully collected and thoroughly digested. There can be no doubt but that he who has the most materials has the greatest means of invention ; and if he has not the power of using them, it must proceed from a feebleness of intellect ; or from the confused manner in which those collections have been laid up in his mind. The addition of other men's judgment is so far from weakening our own, as is the opinion of many, that it will fashion and consolidate those ideas of excellence which lay in embryo, feeble, ill-shaped, and confused, but which are finished and put in order by the authority and practice of those whose works may be said to have been consecrated by having stood the test of ages.

THE mind, or genius, has been compared to a spark of fire, which is smothered by a heap of fuel, and prevented from blazing into a flame. This simile, which is made use of by the younger Pliny, may be easily mistaken for argument or proof. But there is no danger of the mind's being overburthened with knowledge, or the genius extinguished by any addition of images ; on the contrary, these acquisitions may as well, perhaps better, be compared—if comparisons signified anything in reasoning—to the supply of living embers, which will contribute to strengthen the spark that, without the association of more fuel, would have died away. The truth is, he whose feebleness is such as to make other men's thoughts an incumbrance to him, can have no very great strength of mind or genius of his own to be destroyed, so that not much harm will be done at worst.

WE cannot imagine a complete education of man without music. It is the gymnastic of the affections. In suitable connection with exercise, it is necessary to keep body and soul in health.

JEAN PAUL RICHTER.

THINGS, NOT WORDS.

Do not treat the child to discourses which he cannot understand: no descriptions, no eloquence, no figures of speech. Be content to present to him appropriate objects. Let us transform our sensations into ideas. But let us not jump at once from sensible objects to intellectual objects. Let us always proceed slowly from one sensible notion to another. In general, let us never substitute the sign for the thing, except when it is impossible for us to show the thing. I have no love whatever for explanations and talk. Things! things! I shall never tire of saying that we ascribe too much importance to words.

J. J. ROUSSEAU.

MAN AND NATURE.

As to the knowledge of the facts of nature, I would have you devote yourself to them with great care, so that there shall be neither sea, river, nor fountain whose fish you do not know. All the birds of the air; all the trees, shrubs, and fruits of the forests; all the grasses of the earth; all the metals concealed in the depths of the abysses, the precious stones of the entire East and South, — none of these should be unknown to you. By frequent dissections, acquire a knowledge of the other

world, which is man. In a word, I point out a new world of knowledge.

FRANÇOIS RABELAIS.

A HARD MODE OF THOUGHT.

NATURAL science, when its pursuit is one-sided, like every other activity so pursued, narrows the field of view. Natural science, under such circumstances, confines the glance to that which lies immediately at hand and within reach, to what offers itself as the immediate result of sense-perception with apparently unconditional certainty. It turns the mind aside from more general, less certain observations, and disaccustoms it to exercise itself in the realm of the quantitatively indeterminable. In a certain sense, we extol this as an invaluable virtue of science; but where it is exclusively dominant, the mind is apt to grow poor in ideas, the imagination in pictures, the soul in sensitiveness, and the result is a narrow, dry, and hard mode of thought deserted by the Muses and the Graces.

E. DU BOIS-REYMOND.

LEARNING WITH EFFORT.

WE acquire without doubt notions more clear and certain of things we thus learn of ourselves than of those we are taught by others. Another advantage also resulting from this method is, that we do not accustom ourselves to a servile submission to the authority of others, but by exercising our reason, grow every day more ingenious in the discovery of the relations of things, in connecting our ideas, and

in the contrivance of machines ; whereas, by adopting those which are put into our hands, our invention grows dull and indifferent, as the man who never dresses himself, but is served in everything by his servants, and drawn about everywhere by his horses, loses by degrees the activity and use of his limbs. Boileau boasted that he had taught Racine to rhyme with difficulty. Among the many admirable methods taken to abridge the study of the sciences, we are in great want of one to make us learn them with *effort*.

J. J. ROUSSEAU.

TALENT AND GENIUS.

MEDIOCRITY characterizes the great mass of intelligences that are merely mechanical, and that wait for external impulse as to what direction their endeavors shall take. Not without truth, perhaps, may we hypothetically presuppose a special talent in each individual ; but this special talent in many men never makes its appearance, because under the circumstances in which it finds itself placed, it fails to find the exciting occasion which shall give them the knowledge of its existence. The majority of mankind are contented with the mechanical impulse which makes them something, and impresses upon them certain characteristics. Talent shows itself by means of the confidence in its own especial productive possibility, which manifests itself as an inclination, or as a strong impulse, to occupy itself with the special object which constitutes the object of its ability. Education has no difficulty in dealing with mechanical natures, because their passivity is

only too ready to follow prescribed patterns. It is more difficult to manage talent, because it lies between mediocrity and genius, and is therefore uncertain, and not only unequal to itself, but also is tossed now too low, now too high; is by turns despondent and over-excited. The general maxim for dealing with it is to spare it no difficulty that lies in the subject to which its efforts are directed. Genius must be treated much in the same way as talent. The difference consists only in this: that genius, with a premonition of its creative power, usually manifests its decision with less doubt for a special province of activity, and, with a more intense thirst for culture, subjects itself more willingly to the demands of instruction. Genius is in its nature the purest self-determination, in that it feels in its own inner existence the necessity which exists in the object to which it devotes itself; it lives, as it were, in its object. But it can create no valid place for the new idea, which is in it already immediately and subjectively, if it has not united itself to the already existing culture as its objective presupposition; on this ground it thankfully receives instruction.

JOHANN KARL FRIEDRICH ROSENKRANZ.

ON TEACHING MATHEMATICS.

WHAT we contend for, therefore, is that the teacher of mathematics should himself study them not exclusively, but in their relation to philosophy, to logic, to the arts, and to history. In no other way can he have the materials, sphere, and nature of mathematical reasoning so distinctly and sharply defined in his own

mind as not to confound it in the class-room with other departments of education. We contend, further, that in teaching he should not presume that his pupils, even the best of them, will see all the points in which this science touches other sciences and the arts. Unaided, very few indeed will discover any relation between mathematical formulas and logical forms of thought; between the science of optics and the various arts founded upon it. . . . Five minutes' sharp discussion, here and there, by a professor whose mind is full of such thoughts as we have ventured to suggest, will rob the mathematical course of that reputation for dryness and tediousness which it so universally bears. Students will cease to be mere reciters, and become real inquirers. What is so co-ordinated with the other departments of a liberal course of study will be continually brought to the mind, till it is fixed never to be forgotten.

OTIS H. ROBINSON.

THERE is no free-trade measure which will ever lower the price of brains; there is no California of common sense.

JOHN RUSKIN.

A DESIRABLE FACULTY.

THE faculty of perceiving what powers are required for the production of a thing is the faculty of perceiving excellence, in which men, even of the most cultivated taste, must always be wanting, unless they have added practice to reflection; because none can estimate the power manifested in victory unless they have personally

measured the strength to be overcome. Though it is possible by the cultivation of sensibility and judgment to become capable of distinguishing what is beautiful, it is totally impossible without practice and knowledge to distinguish or feel what is excellent. The beauty or the truth of Titian's flesh-tint may be appreciated by all ; but it is only to the artist, whose multiplied hours of toil have not reached the slightest resemblance of one of its tones, that its *excellence* is manifest.

JOHN RUSKIN.

HE among us who best knows how to bear the good and evil fortunes of this life is, in my opinion, the best educated ; whence it follows that true education consists less in precept than in practice.

J. J. ROUSSEAU.

A GREAT NEED.

OF nothing am I more thoroughly convinced than that the most radical defect to-day in our American colleges is a want of due attention to rhetorical studies, understanding by these studies not only practice in the arts of composition and of speech, the patient acquisition of power to think justly, and to express one's thoughts accurately, but also the acquisition of that literary taste, that knowledge of English literature, and that appreciation of its riches, without which facility and skill in the use of our tongue are never attainable. The number of men annually graduating from our colleges with very creditable attainments as to both extent and accuracy

of knowledge, but showing a lamentable incapacity for systematic thinking and for clear, forcible, and correct, not to say elegant, expression of their thoughts, is one of the standing reproaches to our American education. The only remedy appears to be in a more thorough and continuous training in those studies which are known as rhetorical, and which consist in an incessant critical study and practice of the English tongue. Years and years of closest study are given to other tongues, both ancient and modern, tongues which only a fraction of educated men are expected to use in after life, while only incidental and comparatively superficial attention is given to that mother tongue which all are compelled to use in speech or in writing every day of their lives, and on a skilled use of which, with many, depend, to no small degree, their success or failure in life. And in saying this, it is not forgotten that for the enlargement of one's knowledge of English words, and for the cultivation of that nice discrimination between synonymes which only the most careful study of language can impart, — a discrimination which shows itself as one of the striking characteristics of the classics of every people, — nothing has yet been discovered, or is ever likely to be discovered, that can take the place of the critical study of the classical literatures of the Greeks and Romans. But the fact cannot be disguised that many an excellent Latin and Greek scholar writes wretched English, while admirable English is written by many who know neither Latin nor Greek. What our colleges most need is not neglect of the classics of the ancients, but more attention to the classics of our own tongue; an attention that shall consist not merely in a study of its best authors,

but of that unremitted and critical practice, without which, in literature as in everything else, no high degree of excellence is ever attained.

EZEKIEL G. ROBINSON.

THE ART OF READING.

THE very first thing to be remembered by him who would study the art of reading is that nothing can take the place of personal enthusiasm and personal work. However wise may be the friendly adviser, and however full and perfect the chosen handbook of reading, neither can do more than to stimulate and suggest ; nothing can take the place of a direct familiarity with books themselves. To *know* one good book well is better than to know something *about* a hundred good books at second hand. The taste for reading and the habit of reading must always be developed from within ; they can never be given from without.

All plans and systems of reading, therefore, should be taken as far as possible into one's heart of hearts, and be made a part of his own mind and thought. Unless this can be done, they are worse than useless. Dr. McCosh says : "The book to read is not the one that thinks for you, but the one which makes you think." It is plain, then, that a "course of reading" may be a great good or a great evil, according to its use. The late Bishop Alonzo Potter, one of the most judicious of literary helpers, offered to readers this sound piece of advice : "Do not be so enslaved by any system or course of study, as to think it may not be altered." However conscious one may be of his own deficiencies,

and however he may feel the needs of outside aid, he should never permit his own independence and self-respect to be obliterated. "He who reads incessantly," says Milton,

" And to his reading brings not
A spirit and judgment equal or superior,
Uncertain and unsettled still remains,
Deep versed in books, but shallow in himself."

The general agreement of intelligent people as to the merit of an author or the worth of a book, is, of course, to be accepted until one finds some valid reason for reversing it. But nothing is to be gained by pretending to like what one really dislikes, or to enjoy what one does not find profitable or even intelligible. If a reader is not honest and sincere in this matter, there is small hope for him. The lowest taste may be cultivated and improved, and radically changed; but pretence and artificiality can never grow into anything better. They must be wholly rooted out at the start. If you dislike Shakespeare's "Hamlet," and greatly enjoy a trashy story, say so with sincerity and sorrow, if occasion requires, and hope and work for a reversal of your taste.

It should always be borne in mind that the busiest reader must leave unread all but a mere fraction of the good books in the world. . . . Since this is so, he must be very thoughtless and very timid who feels any shame in confessing that he is wholly ignorant of a great many books; and on the other hand, none but a very superficial and conceited reader will venture to express surprise at the deficiencies of others, when a little thought

would make his own so clearly manifest. In Cowper's words :

“ Knowledge is proud that he has learned so much ;
Wisdom is humble that he knows no more.”

CHARLES F. RICHARDSON.

HEART EDUCATION.

CRIME, small and great, can only be truly stayed by education, — not the education of the intellect only, which is on some men wasted, and for others mischievous, but education for the heart, which is alike good and necessary for all.

JOHN RUSKIN.

NOT A SLAVE TO MAXIMS.

CULTIVATE universality of taste. There is no surer mark of a half-educated mind than the incapacity of admiring various forms of excellence. Men who cannot praise Dryden without dispraising Coleridge ; nor feel the stern, earthly truthfulness of Crabbe without disparaging the wild, ethereal, impalpable music of Shelley ; nor exalt Spenser except by sneering at Tennyson, are precisely the persons to whom it should in consistency seem strange that in God's world there is a place for the eagle and the wren, a separate grace to the swan and the humming-bird, their own fragrance to the cedar and the violet. Enlarge your tastes that you may enlarge your hearts as well as your pleasures ; feel all that is beautiful, love all that is good. The first maxim in religion and in art is : Sever yourself from all sectarianism ; pledge yourself

to no school ; cut your life adrift from all party ; be a slave to no maxims ; stand forth unfettered and free, servant only to the truth. And if you say, "But this will force each of us to stand alone," I reply: "Yes, grandly alone ! untrammelled by the prejudices of any, and free to admire the beauty and love the goodness of them all."

FREDERICK W. ROBERTSON.

A WARNING.

EDUCATION may be, instead of a great blessing, a great curse. We are training boys and girls too rapidly. We have a thousand candidates for one place. The nine hundred and ninety-nine live, then, by their wits, and the wits are turned to fraud and sensationalism. This is not an argument against education, but a warning. "Make it healthy and safe."

LORD SHAFTESBURY.

AN UNSOLVED PROBLEM.

THE teacher of an evening school has no easy task. He has widely various minds to deal with. Grouping the pupils by similarities of conditions and needs goes but little way to help him. To succeed in teaching such a heterogeneous company, he needs more than ordinary skill, versatility, and good sense. The mere routine that day-school teachers sometimes fall into utterly breaks down here. And yet the appointing powers too often act as if inferior qualifications were good enough for teachers of evening schools. Teachers who have failed in the day schools or who are

thought to be unfit for appointment there, are allowed to try their hand at the no less delicate task of teaching evening-school pupils. A good deal of the work in evening schools is done by those who are not and do not intend to become teachers by profession. Their chief interest lies in some other profession; and they resort to teaching for the time being as a means of partial support. They may or may not be good teachers. If they are, well and good; if they are not, it is bad for the school, however convenient the stipends may be for themselves. How to provide the evening-school service with a sufficient body of professionally trained teachers, — able persons who have adopted teaching as a life-work, — is yet one of the unsolved problems.

E. P. SEAVER.

THE TEACHER OF THE FUTURE.

Now, looking forward fifty years, instead of backward, and judging from the present tendencies, what can we affirm that the teacher of the future is to be, what his qualifications, and what his professional career? It will be safe to say that he must possess some natural aptitude for the office: a bright intellect and warm heart; a knowledge of things beyond what is required to be taught; a professional training or its equivalent; a winning presence in person and manners; in short, a model character intellectually, morally, and socially. Such will be the requisites for an appointment.

To retain his place he must never cease to be a progressive man. His professional education must never be suffered to come to an end. He must read the great

thoughts of great writers on the nature of the mind to be educated, on social organization, on the demands of an advancing age; must in some measure keep up with the world in popular science and literature; he must enrich his mind by studying the lives and success of great educators of the past, and know something of the results of the experiments of successful, living teachers.

Above all, he must in his daily work observe and experiment for himself, just as if he were a self-made teacher, remembering the words of Richter, "All is but lip-wisdom that wants experience." His inquisitive eye must watch and note all that passes before his eye in the little world under his care. That is his laboratory for analyzing human character, his practical school of philosophy. He will daily test and revise his own work, and feel his way along like the careful investigating philosopher, generalizing the results of his own observation and experiments, and then verifying his generalizations by new tests. Something of this kind is within the reach of every one who is born and educated to be a teacher.

BARNAS SEARS.

EDUCATIONAL SYSTEMS A GROWTH.

No one particular age can prescribe the methods for succeeding ages; no one nation for all succeeding nations; no one race for all other races. Schools are an organic growth of society. They represent more or less perfectly the wants and spirit of a nation. Modern methods of teaching should therefore represent the

existing state of knowledge and civilization, not the obsolete learning or methods of past ages; but traditional culture, like customs, manners, habits, and laws, too often holds sway long after the causes that organized it have ceased to act. "Like political constitutions," says Herbert Spencer, "educational systems are not *made*, but grow; and within brief periods growth is insensible."

While it cannot be claimed as yet that teaching is a fully developed science, great progress has been made in formulating the principles that underlie the best of our present methods of instruction. Educational history is full of errors, most of which were the result of empirical methods. Experience in this field, as in every other, in order to be of any value, must be the result of experiments directed by the light of science, and must have for its objective point the welfare of every child in the nation.

JOHN SWETT.

LIFE-EDUCATION.

DAILY experience shows that it is energetic individualism which produces the most powerful effects upon the life and action of others, and really constitutes the best practical education. Schools, academics, colleges, give but the merest beginnings of culture in comparison with it. Far more influential is the life-education daily given in our homes, in the streets, behind counters, in workshops, at the loom and the plough, in counting-houses and manufactories, and in the busy haunts of men. This is that finishing instruction as members of society,

which Schiller designated "the education of the human race," consisting in action, conduct, self-culture, self-control, — all that tends to discipline a man truly, and fit him for the proper performance of the duties and business of life, — a kind of education not to be learned from books or acquired by any amount of mere literary training. With his usual weight of words, Bacon observes that "studies teach not their own use; but that is a wisdom without them, and above them, won by observation"; a remark that holds true of actual life, as well as of the cultivation of the intellect itself. For all experience serves to illustrate and enforce the lesson that a man perfects himself by work more than by reading; that it is life rather than literature, action rather than study, and character rather than biography, which tend perpetually to renovate mankind.

SAMUEL SMILES.

THE HOME OR THE NATION.

EVERY human being has duties to be performed, and therefore has need of cultivating the capacity for doing them, whether the sphere of action be the management of a household, the conduct of a trade or profession, or the government of a nation.

SAMUEL SMILES.

IMPORTANT KNOWLEDGE AND BELLES-LETTRES.

HOWEVER fully we may admit that extensive acquaintance with modern languages is a valuable accomplishment, which, through reading, conversation, and travel, aids in giving a certain finish, it by no means follows

that this result is rightly purchased at the cost of that vitally important knowledge sacrificed to it. Supposing it true that classical education conduces to elegance and correctness of style, it cannot be said that elegance and correctness of style are comparable in importance to a familiarity with the principles that should guide the rearing of children. Grant that the taste may be greatly improved by reading all the poetry written in extinct languages; yet it is not to be inferred that such improvement of taste is equivalent in value to an acquaintance with the laws of health. Accomplishments, the fine arts, *belles-lettres*, and all those things which, as we say, constitute the efflorescence of civilization, should be wholly subordinate to that knowledge and discipline in which civilization rests. *As they occupy the leisure part of life, so should they occupy the leisure part of education.*

HERBERT SPENCER.

AN ELEMENT OF POWER.

OF one thing every teacher may be certain: that scolding and chronic fault-finding will not win the hearts of the young. Scolding turns a schoolroom into a pandemonium, and distils gall instead of sweetness into the work of the teacher. Every teacher of young pupils should put herself under bonds to be good-natured. We well know that the physical conditions and material surroundings often exert a powerful influence and have a strong tendency to disturb the equanimity and exasperate the feelings of the teacher. All of these things must be overcome, the nerves must not be unstrung, the spirit must be controlled and kept in a

state of peace, if we would, as teachers, lift the burdens from the hearts of our children. Patient persistency in the use of kindness and gentle speech is an element of power in the teacher. Yes! young teacher, you may be firm, but you must be also very kind, if you would send rays of sunshine into young hearts and win their lasting affection and esteem. One has truly said, "Kind words are more than gems from Golconda, or pearls from the sea."

WILLIAM E. SHELDON.

ÆSTHETIC TRAINING.

THE cultivation of the æsthetic sentiment may enter into almost every department of education. On one side it stands in close connection with intellectual training. The feeling for what is graceful or elegant may be developed to some extent in connection with such seemingly prosaic exercises as learning to read and to write; and by this means a certain artistic interest may be infused into the occupation. The teaching of the use of the mother tongue in vocal recitation and written composition offers a wider field for the exercise of the æsthetic sense, in a growing feeling for rhetorical effect and for literary style. Many branches of study tend to develop the æsthetic feelings, and owe much of their interest to this circumstance. This is pre-eminently true of classical studies and of literature generally, which, as already pointed out, specially exercise the imagination on its æsthetic side. Physical geography may be so taught as to elicit a feeling for the picturesque and the sublime in natural scenery, and history, so as to call forth a feeling of sympathetic appreciation

for the picturesque lights and shadows of human life and experience, and admiration for what is great and noble in human conduct and character. Even the more abstract studies, as geometry and physical science, may be made a means of evoking and strengthening a feeling for what is beautiful, not only in material objects (*c.g.*, regularity and symmetry in geometric figures, beauties of form and color in minerals, plants, and animals), but in ideas and their logical relations.

On another side, the training of the æsthetic sense comes into contact with moral training. To adopt and practise in mode of dress, in speech, and generally in manners, what is agreeable to the æsthetic feelings of others, is a matter of so much social importance that it is rightly looked on as one of the lesser moral obligations. Hence the stress laid in the early period of training on the cultivation of naturalness and fitness in carriage, movement, and speech, on neatness in dress, etc., and on the graces of courtesy.

It is to be observed finally that, in training the æsthetic faculty, a natural order is to be followed, answering to the development of faculty. Thus, it is evident that tune singing, or singing in unison, must precede part singing, which presupposes the development of a sense of musical harmony. Similarly, a certain training in the use of colors may appropriately precede exercises in drawing.

JAMES SULLY.

SCHOOL KNOWLEDGE AND DAILY LIFE.

No part of a child's school knowledge can be safely allowed to remain long detached from its daily life. The

history and geography of lesson books must join on to that of the newspapers ; it is almost worse to know the name and date of a writer or a hero, without an independent familiarity with the nature of his books or actions, than to be frankly ignorant of all at once ; and in every branch of science it is admitted that a knowledge of definitions and formulæ is useless apart from experimental acquaintance with the actual bodies described. An inaccurate general knowledge that would not stand the test of examination may, even in some cases, have more educational value than a few correct and barren facts ; and our educational results will not be thoroughly satisfactory, if detailed information is imparted faster than circumstantial impressions about its color and bearing.

MISS EDITH SIMCOX.

WISDOM AND KNOWLEDGE.

Now for the philosophy which relates to knowledge. Knowledge is a brave thing. I am a plain, ignorant, untaught man, and know my ignorance. But it is a brave thing when we look around us in this wonderful world, to understand something of what we see ; to know something of the earth on which we move, the air which we breathe, and the elements whereof we are made ; to comprehend the motions of the moon and stars, and measure the distances between them, and compute times and seasons ; to observe the laws which sustain the universe by keeping all things in their courses ; to search into the mysteries of nature, and discover the hidden virtue of plants and stones, and read the signs and tokens which are shown us, and make out the meaning

of hidden things, and apply all this to the benefit of our fellow-creatures.

Wisdom and knowledge, Daniel, make the difference between man and man, and that between man and beast is hardly greater.

These things do not always go together. There may be wisdom without knowledge, and there may be knowledge without wisdom. A man without knowledge, if he walk humbly with his God, and live in charity with his neighbors, may be wise unto salvation. A man without wisdom may not find his knowledge avail him quite so well. But it is he who possesses both that is the true philosopher. The more he knows, the more he is desirous of knowing; and yet the further he advances in knowledge the better he understands how little he can attain, and the more deeply he feels that God alone can satisfy the infinite desires of an immortal soul. To understand this is the perfection of philosophy.

ROBERT SOUTHEY.

THE HEAD AND THE HEART.

It is not merely true that all enlightenment of the understanding is valuable only so far as it reacts upon the character. It also proceeds, to a certain extent, from the character; for the road to the head must pass through the heart.

J. C. F. SCHILLER.

SUBSIDIZING ALL SOURCES.

THE teacher should always be a pupil. That catholicity of faith and that humility which always mark the

sincere seeker after truth only come to him who is ever in quest of the truth. The moment one ceases to be a student, he practically shuts himself up within the limits of his own narrow sphere, while the great universe of truth is all without and beyond him. One of the greatest mistakes that we have ever made in this work of education is in supposing that the so-called limits of the studies pursued in our schools fix practically the boundaries of the knowledge to be possessed by the teachers.

While it is too true that the mere shell of instruction, as laid down in a course of study, may be given by one who knows but little more himself, it is equally certain that the true education, the real instruction, the "building up" of the youthful mind in symmetry and in strength, is too often a sad and lamentable failure. In the day of final reckoning, how many minds shall be found to have been darkened; how many aspirations to have been quenched; how many careers of honor and usefulness to have been turned to failure or even disgrace, by the refusal or inability of the early teacher to respond to what were then called the whims of childish fancy, or the thoughtless word? Let it, then, be your worthy ambition to subsidize all realms of attainable truth to your work. No matter how humble your sphere, or how contracted, you are dealing with immortal souls, whose possibilities are alone known to their Creator. Like Paul and Apollos, the apostles and teachers of olden time, it is for you to plant and water and nourish; but it is God that giveth the increase.

WHAT KNOWLEDGE IS OF MOST WORTH?

WHAT knowledge is of most worth? The uniform reply is—science. This is the verdict on all the counts. For direct self-preservation, or the maintenance of life and health, the all-important knowledge is—science. For that indirect self-preservation which we call gaining a livelihood, the knowledge of greatest value is—science. For the due discharge of parental functions, the proper guidance is to be found only in—science. For that interpretation of national life, past and present, without which the citizen cannot rightly regulate his conduct, the indispensable key is—science. Alike for the most perfect production and highest enjoyment of art in all its forms, the needful preparation is still—science. And for purposes of discipline—intellectual, moral, religious—the most efficient study is, once more—science. The question which at first seemed so perplexed, has become, in the course of our inquiry, comparatively simple. We have not to estimate the degrees of importance of different orders of human activity, and different studies as severally fitting us for them, since we find that the study of science, in its most comprehensive meaning, is the best preparation for all these orders of activity. We have not to decide between the claims of knowledge of great though conventional value, and knowledge of less though intrinsic value; seeing that the knowledge which we find to be of most value in all other respects is intrinsically most valuable; its worth is not dependent upon opinion, but is as fixed as is the relation of man to the surrounding world. Necessary and eternal as are its truths, all

science concerns all mankind for all time. Equally at present, and in the remotest future, must it be of incalculable importance for the regulation of their conduct, that men should understand the science of life, physical, mental, and social; and that they should understand all other science as a key to the science of life.

HERBERT SPENCER.

THE GIFTS OF A LIBERAL EDUCATION.

MR. SPENCER seems to ignore the fact that the thing, after all, that is of most service to a man in making his way in the world is to *be*, first of all, an intelligent man; and this intelligence it is precisely the purpose of education to give him. He will be able to get his handy information for himself afterward, in one direction or another, as happens to be most useful to him. The ability to read, in the largest and highest sense, that is to say, the ability to get the full benefit of other men's minds and experience from their written words, and the ability to think, — these are gifts bestowed by a liberal education, that are worth any amount of a particular set of facts. If Aristotle and Bacon were to enter the company, we should hardly fail to recognize them as rather well-educated men, although their minds would be empty of all these facts of modern science that are asserted by Mr. Spencer to be the essential conditions of any sound education.

E. R. SILL.

WE ought to be able to say as Richter did: "I have made as much of myself as could be made of the stuff, and no man should require more."

SAMUEL SMILES.

INTELLECTUAL AND MORAL CULTURE.

THE problem of determining the exact relation of intellectual culture to moral culture is one which has perplexed men's minds from the days of Socrates. On the one hand, as has been remarked, the enlightenment of the intelligence is essential to the growth of a clear and finely discriminative moral sense. On the other hand, it is possible to exercise the intellect in dealing with the formal distinctions of morality without calling the moral faculty into full vital activity.

This practical difficulty presses with peculiar force when we come on to the later exercises of moral instruction. The full carrying-out of the process of informing the moral intelligence naturally conducts to the more or less systematic exposition of the ideas and truths of ethics. An enlightened conscience is one to which the deepest grounds of duty have begun to disclose themselves, and which has approximated to a complete and harmonious ideal of goodness by a systematic survey and co-ordination of the several divisions of human duty and the corresponding directions of moral virtue and excellence. Something in the shape of ethical exposition is thus called for, when the child reaches a certain point in moral progress. But the educator must be careful to make this dogmatic instruction supplementary to, and not a substitute for, the drawing forth of the whole moral faculty on its sensitive and on its reflective side alike, by the presentation of living concrete illustrations of moral truth. Divorced from this, it can only degenerate into a dead formal exercise of the logical faculty and the memory.

JAMES SULLY.

WHEN facts are not organized into faculty, the greater the mass of them the more will the mind stagger along under its burden, hampered, instead of helped, by its acquisitions.

HERBERT SPENCER.

NATURAL ORDER OF DEVELOPMENT.

THE first essential in education is that the *knowledge of the world*, the attainment of which is the aim of true education, should *begin at the right end*. And how this is to be realized is also obvious; *in every subject intuitions should precede general ideas, and the narrower idea the wider one, and thus the whole structure of knowledge be built up in the exact order in which one thought suggests another*. The instant a link in the chain of thought is omitted, there arise imperfect ideas, and from imperfect ideas false ideas, and finally distorted views of the world, of a kind more or less peculiar to the individual, and such as we see most people carrying in their heads for a long time, in a majority of cases through life. He who examines himself will discover that the correct or the clear comprehension of many simple matters and relations first dawned upon him at a late period in life, and sometimes very suddenly. Now these were dark spots in his knowledge of the world, owing their origin to omitted links in the chain of thought in early education, whether natural or artificial. We ought, therefore, to try to discover the natural order in the development of ideas in the different branches of knowledge, and then we ought to impart to children knowledge about things and the relations of things methodically and in harmony with this order.

ARTHUR SCHOPENHAUER.

A STRONG HEAD AND A SOUND HEART.

HISTORY teaches one plain and mournful lesson: that man cannot safely be left to his luxurious tendencies, be they of the sense or of the soul. There must be austerity somewhere. There must be a strong head and a sound heart somewhere. And where ought we to look for these but in the educated classes? In whom, if not in these, ought we to find that theory of education, that style of culture, and that tone of intellect which will right up society when it is sinking down into luxury, or hold it up where it is, if it is already upright and austere? Educated men, amid the currents and in the general drift of society, ought to discharge the function of a warp and anchor. They, of all men, ought to be characterized by strength. And especially do our own age and country need this style of culture. Exposed as the national mind is to a luxurious civilization, as imminently exposed as Nineveh or Rome ever were, the Beautiful is by no means the main idea by which it should be educated and moulded. As in the Prometheus, none but the demi-gods Strength and Force can chain the Titan. Our task, as men of culture and as men who are to determine the prevailing type of culture, is both in theory and practice to subject the Form to the Substance; to bring the Beautiful under the problem of the True and the Good. Our task, as descendants of an austere ancestry, as partakers in a severe nationality, is to retain the strict, heroic, intellectual, and religious spirit of the Puritan and the Pilgrim in these forms of an advancing civilization. In order to this, in order that the sensuously and luxu-

riously Beautiful may not be too much for us, strength and reserve are needed in the cultivated classes. They must be reticent, and, like the sculptor, chisel and re-chisel, until they cut off and cut down to a simple and severe beauty in Art and in Literature, in Religion and in Life.

WILLIAM G. T. SHEDD.

MANY IN ONE.

LEARNING is a world, not a chaos. The various accumulations of human knowledge are not so many detached masses. They are all connected parts of one great system of truth; and though that system be infinitely too comprehensive for any one of us to compass, yet each component member of it bears to every other component member relations which each of us may, in his own department of study, search out and discover for himself. A man is really and soundly learned in exact proportion to the number and to the importance of those relations which he has thus carefully examined and accurately understood.

SIR JAMES STEPHEN.

ACCURACY.

FOR every purpose, whether for action or speculation, I hold that quality to be most valuable which it is quite within our own power to acquire, and which Nature, unassisted, never yet gave to any man,—I mean a perfectly accurate habit of thought and expression. Such is, as far as I can see, one of the very rarest acquirements.

LORD STANLEY.

IN EXILE.

THERE is no land where man cannot dwell, no land where he cannot uplift his eyes to heaven; wherever we are, the distance of the divine from the human remains the same. So then, as long as my eyes are not robbed of that spectacle with which they cannot be satiated, so long as I may look upon the sun and moon, and fix my lingering gaze on the other constellations, and consider their rising and setting and the spaces between them and the causes of their less and greater speed, — while I may contemplate the multitude of stars glittering throughout the heaven, some stationary, some revolving, some suddenly blazing forth, others dazzling the gaze with a flood of fire as though they fell, and others leaving over a long space their trails of light; while I am in the midst of such phenomena, and mingle myself, as far as a man may, with things celestial, — while my soul is ever occupied in contemplations so sublime as these, what matters it what ground I tread?

SENECA.

IN A FOG.

A MAN who does not understand Latin is like one who walks through a beautiful region in a fog; his horizon is very close to him. He sees only the nearest things clearly, and a few steps away from him the outlines of everything become indistinct or wholly lost. But the horizon of the Latin scholar extends far and wide through the centuries of modern history, the Middle Ages, and antiquity.

ARTHUR SCHOPENHAUER.

YOUTHFUL DISCOVERERS.

IN education the process of self-development should be encouraged to the fullest extent. Children should be led to make their own investigations, and to draw their own inferences. They should be *told* as little as possible, and induced to *discover* as much as possible. Humanity has progressed solely by self-instruction; and that to achieve the best results, each mind must progress somewhat after the same fashion, is continually proved by the marked success of self-made men. Those who have been brought up under the ordinary school drill, and have carried away with them the idea that education is practicable only in that style, will think it hopeless to make children their own teachers. If, however, they call to mind that the all-important knowledge of surrounding objects which a child gets in its early years is not without help, — if they will remember that the child is self-taught in the use of its mother tongue, — if they will estimate the amount of that experience of life, that out-of-school wisdom which every boy gathers for himself, — if they will mark the unusual intelligence of the uncared-for London gamin, as shown in all the directions in which his faculties have been tasked, — if further, they will think how many minds have struggled up unaided, not only through the mysteries of our irrationally planned curriculum, but through hosts of other obstacles besides, they will find it a not unreasonable conclusion, that if the subjects be put before him in right order and right form, any pupil of ordinary capacity will surmount his successive difficulties with but little assistance.

As this life is a preparation for eternity, so is education a preparation for this life ; and that education alone is valuable which answers these great primary objects.

BISHOP SHORT.

EDUCATION FOR CITIZENSHIP.

WHAT kind of education should every voter have? First, last, and always, political education, built upon the foundation of sound common sense and enlightened conscience. He must know his rights ; he must feel and perform his duties ; he must love his country.

Conceive of a perfect governor. He knows human nature thoroughly. He is deeply versed in the philosophy of history. In his memory lie, like paths of light, the careers of the great governments in past centuries. He knows the history of liberty, each pillar and arch and buttress of the great temple of freedom, and how they have been cemented with the best blood of the race. Especially is he familiar with every phase of the past and present life of his own country, its prominent men, its principles, and its parties. Nothing that bears upon the political or social science escapes his apprehension, or misleads his judgment, or baffles his action. His arm is as strong, his heart as warm, his conscience as keen, as his intellect is piercing and comprehensive. Add to this a familiar acquaintance with common business ; the ability of prompt action ; the faculty of ready, clear, concise speech ; skill in parliamentary affairs ; tact in the management of men ; knowledge of all those branches of learning and applied science that are called into play in the transaction of public business. Crown

him as a loyal son of the great King ! This is our ideal governor ; this is our ideal voter. To the measure of the stature of this perfect citizenship every man ought to come. The essential nature of our government requires nothing less. Unless a clear majority of voters are brought somewhere near the attainment of this goal, our liberties are not safe.

How shall this ideal be measurably attained? . . .

There is one instrumentality through which the desired results may be attained. It is an American invention, the capacity of which has been but partially shown, but which possesses immeasurably more power than we have been accustomed to think. It can reach nearly every child and every youth, three to six hours a day, five or six days a week, and keep its hold upon him from the age of four or five to sixteen or eighteen. Never was machinery more happily devised to accomplish any result than the public school system of New England to produce enlightened and conscientious voters. With a few adjustments easily made, a definite purpose persistently pursued, and a period of instruction reasonably prolonged, the great majority of young Americans can be made wise and good citizens.

And this is, or ought to be, the great object aimed at in the public schools. It is demonstrable that the founders of New England established its school system for this very end ; not to enable men to earn a livelihood, but to qualify them for citizenship ; not to help them to make money, or shine in professions, or to become skilled mechanics, prudent farmers, bold sailors, shrewd lawyers, accurate accountants, but to be capable and virtuous members of the body politic, to manage

wisely public affairs; in the language of Milton, "to perform justly, skilfully, and magnanimously all the offices, public and private, of peace and war." I repeat, the great need of this country, and the fundamental idea of the public school system are identical; viz., political education, the training up of the masses in youth to be intelligent, honest, and patriotic participators in public business. This harvest fully assured, the more superadded conveniences and accomplishments the better; failing all this, all else is chaff.

HOMER B. SPRAGUE.

THE SCIENCE OF GOVERNMENT.

IT is true that a thorough mastery of the science of government in all its various operations requires a whole life of laborious diligence. But it is equally true that many of its general principles admit of a simple enunciation, and may be brought within the comprehension of the most common minds. In this respect it does not materially differ from any of the abstract physical sciences. Few of the latter are in their full extent within the reach of any but the highest class of minds; but many of the elements are nevertheless within the scope of common education, and are attainable by ordinary diligence. It is not necessary that every citizen should be a profound statesman. But it may nevertheless be of vast consequence that he should be an enlightened as well as an honest voter, and a disciplined thinker, if not an eloquent speaker. He may learn enough to guard himself against the insidious wiles of the demagogue, and the artful appeals of the courtier, and the

visionary speculations of the enthusiast, although he may not be able to solve many of the transcendental problems in political philosophy.

JOSEPH STORY.

A CONVERSATION CLASS.

WHY do we cram ologies, osophies, and onomics into a young girl's overtaxed brain, and then complacently send her out into the critical, censorious world with a limited vocabulary, little knowledge of the subtle meaning, the ins and outs, the lights and shades of her own language, scanty information on current topics, her power to communicate what she has read, and a few silly stock phrases, which I wish could be obliterated. The best scholars seem to be often awkward, shy, and silent, unless drawn out upon their favorite study; the more frivolous and superficial chatter, indulge in superlatives, and giggle. Is this too severe? A wise old bachelor, who has had uncommon social opportunities and who is always criticising his women friends in a way at once cynical and helpful, said to me the other day: "Why don't you start a conversation class? It is an art that is strangely and sadly neglected. At least you can write about this, and try to wake women to the fact that they do not converse. They seem to merely open their pretty mouths and let the words tumble out, without any plan or forethought. I asked a young lady who was attending one of our best boarding-schools what instruction was given there in conversation, and she had never heard of such a thing being attempted." So he set me to thinking and writing.

KATE SANBORN.

CONTENTMENT AT HOME.

IF you devote your time to study you will avoid all the irksomeness of life; nor will you be a burden to yourself, nor your society unsupportable to others.

SENECA.

AN IDEAL SCHOOL.

A WELL-GOVERNED school, in my estimation, is so well poised, that is, so self-poised, that in the absence of the teacher, it will run on of itself till the nightfall, without noise or friction. Is this too much to expect? Fellow-teachers, we can take iron and brass and make a watch that will keep time when its owner is sound asleep; that will run on correctly for a year. He is a poor watch-maker who cannot make one that will run twenty-four hours. Can we do more with dead, dumb metal than we can with living, loving, throbbing human hearts? Can we accomplish more accurate, definite, reliable results with our skilled hands than our trained minds? Shall a teacher of immortal souls yield to a maker of machinery? Nay, verily.

J. DORMAN STEELE.

A STRONG PROTEST.

SINCE the differences and divergencies in personality are almost as diverse and multiplicative as the atoms comprising the universe, there can be only foolhardiness and failure in any attempt at formulating a general system for mental training. None, however generous, can be made sufficiently catholic to cope with recognizable needs. Schools and colleges, except in a few isolated

cases, can, at best, only lay the foundation of what may afterward, by individual effort, become sound and practical mental culture. . . . It is granted, with the utmost readiness, that in matured and developed minds there exists an element, which for want of a more clearly descriptive term, we call individuality. In young people, on the other hand, it seems to be the generally accepted conclusion that the existence of this characteristic is impossible. When individuality, however, *is* recognized in youth, it rarely meets with anything else than the most unflinching and tireless efforts to destroy and quench it, as if it was a thing so terrible and sinister that it menaced church, state, and all great and high human interests. The whole aim and object seems to be to make something else of the youthful mind than that which it really is. A gentle, sensitive child, of dreamy, poetic temperament and modest reticence, is scoffed, sneered, and bullied into an artificial creature of coldness and indifference. If he is modest, no effort is left unmade to break in upon that. If he is independent and fearless, battle is done for the breaking and subversion of his will. The paramount purpose, as I have already said, is, if one may be permitted to pass judgment upon what is, on every hand, plainly before one's eyes, to obliterate, wherever it may be existent, every spark, gleam, and trace of individuality and originality. While this, of course, is not really the purpose of instructors, it is in most cases the main result of their labor. Instructors are not of themselves so vastly wrong; the system which they follow is where the fault is, and this cannot be changed until more than one hand is uplifted against it.

GEORGE SAND.

IF there is a real love of books, there is hardly a limit to be set to the knowledge that may be acquired from them without the aid of instruction, schools, or colleges.

MISS CATHERINE M. SEDGWICK.

THE OBJECTIVE ORDER.

EDUCATION should embrace *the mind, the heart, and the life* of man. Now the heart, that is, the will together with the affections, should be in accordance with the mind, and the life with the heart. If the mind is thus conformed to the objective order of things, if it possesses the serene light of truth, not the false and confusing lights of opinion and prejudice, the heart will have a type, as it were, on which to mould itself; and the life will be a continual image of the heart. If the life is to be a continual working out of universal good, the heart must first be filled with universal charity; and the latter cannot enter the heart unless the mind is so disposed as to exclude no form of knowledge, but to embrace all. The *universality* of an impartial mind produces the *universality* of the benevolent heart, and the *universality* of the benevolent heart produces the *universality* of a good life. The child's mind should, then, be educated to recognize all the connections of things which he is capable of perceiving at each period of his childhood; in other words, all of the objective order which he is capable of recognizing, and to bring him to this, the association of things in his mind must not be left to chance, but be duly ordered, the most important coming first, the less important afterwards.

ANTONIO ROSMINI SERBATI.

RELIGION THE SOURCE OF LEARNING.

It is not accidental that the actual historical progress of mankind in art, science, philosophy or virtue, should depend, as we have seen, upon some religious impulse for its beginnings and continuance. Nor is it strange that schools and systems of education should have had no other source. It is only surprising when we fancy that the currents of progress can now be made to flow from any different springs, or that the lamp of learning can be lighted or kept burning with any other flame. If we are wise we shall not only learn, but be guided by lessons which history and human nature both teach, that education divorced from religion is like a tree severed from its nourishing roots, which thereby falls to the ground, leaving its leaves to wither, its fruit to perish, and itself to decay. From such folly we turn, leaving the blind to lead the blind, not doubting what the end to them both will be.

What, then, are the practical consequences of this truth? What adjustments does it require in the processes of our higher education? It requires obviously that the corner-stone and the top-stone and the informing law of our whole educational fabric should be Christian faith and Christian freedom, the faith in which the true, religious life finds its only sufficient root, and the freedom in which that same life finds its only adequate expression. We need Christian faith to perpetuate and perfect what Christian faith has begun. For, even if the fabric built upon this basis could be kept standing when its foundations were removed, its increasing beauty and living growth would then be gone. A Chris-

tian college, therefore, looking not at transient but at permanent ends, sowing seed for a perennial harvest of the farthest science and the fairest culture, will be solicitous, first of all to continue Christian. If it is to be in the long run truly successful in the advancement of learning, it will have the Christian name written, not alone upon its seal and its first records, but graven in its life as ineffaceably as was the name of Phidias on Athene's shield.

JULIUS H. SEELYE.

THE TEACHINGS OF EXPERIENCE.

IN this last stage of his progress, a man learns in various ways. First, he learns unconsciously by the growth of his inner powers and the secret but steady accumulation of experience. The fire of youth is toned down and sobered. The realities of life dissipate many dreams, clear up many prejudices, soften down many roughnesses. The difference between intention and action, between anticipating temptation and bearing it, between drawing pictures of holiness or nobleness and realizing them, between hopes of success and reality of achievement, is taught by many a painful and many an unexpected experience. In short, as the youth puts away childish things, so does the man put away youthful things. Secondly, the full-grown man learns by reflections. He looks inwards, and not outwards only. He rearranges the results of past experience, re-examines by the test of reality the principles supplied to him by books or conversation, reduces to intelligible and practical formulas what he has hitherto known as vague general rules. He not only generalizes, — youth will gener-

alize with great rapidity, and often with great acuteness, — but he learns to correct one generalization by another. He gradually learns to disentangle his own thoughts, so as not to be led into foolish inconsistencies by want of clearness of purpose. He learns to distinguish between momentary impulses and permanent determination of character. He learns to know the limits of his own powers, moral and intellectual; and by slow degrees and with much reluctance, he learns to suspend his judgment, and to be content with ignorance where knowledge is beyond his reach. He learns to know himself and other men, and to distinguish in some measure his own peculiarities from the leading features of humanity which he shares with all men. He learns to know both the worth and the worthlessness of the world's judgment and of his own. Thirdly, he learns much by mistakes, both by his own and by those of others. He often persists in a wrong cause till it is too late to mend what he has done, and he learns how to use it and how to bear it. His principles, or what he thought his principles, break down under him, and he is forced to analyze them in order to discover what amount of truth they really contain. He comes upon new and quite unexpected issues of what he has done or said, and he has to profit by such warnings as he receives. His errors often force him, as it were, to go back to school; not now with the happy docility of a child, but with the chastened submission of a penitent. Or, more often still, his mistakes inflict a sharp chastisement, which teaches him a new lesson without much effort on his own part to learn. Lastly, he learns much by contradiction. The collision of society compels

him to state his opinions clearly ; to defend them ; to modify them when indefensible ; perhaps to surrender them altogether, consciously or unconsciously ; still more often to absorb them into larger and fuller thoughts, less forcible, but more comprehensive. The precision which is thus often forced upon him always seems to diminish something of the heartiness and power which belonged to more youthful instincts ; but he gains in directness of aim, and therefore in firmness of resolution. But the greatest of his gains is what seems a loss ; for he learns not to attempt the solution of insoluble problems, and to have no opinion at all on many points of the deepest interest. Usually this takes the form of an abandonment of speculation ; but it may rise to the level of a philosophical humility, which stops where it can advance no further, and confesses its own weakness in the presence of the mysteries of life.

FREDERICK TEMPLE.

IF you allow yourself to rest satisfied with present attainments, however respectable they may be, your mental garments will soon look very threadbare.

F. W. TILTON.

THE WORLD STILL YOUNG.

I DO not think that it is the mission of this age, or of any other particular age, to lay down a system of education which shall hold good for all ages. The basis of human nature is, perhaps, permanent ; but not so the forms under which the spirit of humanity manifests itself. It is sometimes peaceful, sometimes warlike,

sometimes religious, sometimes sceptical; and history is simply the record of its mutations.

“ The eternal Pan
Who layeth the world's incessant plan
Halteth never in one shape,
But forever doth escape
Into new forms.”

This appears to be the law of things throughout the universe; and it is, therefore, no proof of fickleness or destructiveness, properly so called, if the implements of human culture change with the times, and the requirements of the present age be found different from those of the preceding. Unless you are prepared to say that the past world, or some portion of it, has been the final expression of human competency; that the wisdom of man has already reached its climax; that the intellect of to-day possesses feebler powers or a narrower scope than the intellect of earlier times, you cannot, with reason, demand an unconditional acceptance of the systems of the past; nor are you justified in divorcing me from the world and times in which I live, and confining my conversation to the times gone by. Who can blame me if I cherish the belief that the world is still young; that there are great possibilities in store for it; that the Englishman of to-day is made of as good stuff, and has as high and independent a vocation to fulfil as had the ancient Greek or Roman? While thankfully accepting what antiquity has to offer, let us never forget that the present century has just as good a right to its forms of thought and methods of culture as any former centuries had to theirs, and that the

same sources of power are open to us to-day as were ever open to humanity in any age of the world.

JOHN TYNDALL.

A BIT OF ADVICE.

MIGHT I give counsel to any young hearer, I would say to him: "Try to frequent the company of your betters. In books and life that is the most wholesome society. Learn to admire rightly; the great pleasure of life is that. Note what the good men admired; they admired good things, while narrow spirits always admire basely and worship meanly."

WILLIAM M. THACKERAY.

THE TEACHER'S RESPONSIBILITY.

IN order that a teacher should be thoroughly devoted to his work, he should be duly sensible of its importance; he should believe that the future character of a country depends upon the education of its children; he should be fully aware that in the soft and virgin soil of their souls he may plant the shoots of poison or sow the seeds of sweet-scented flowers or of life-giving fruit; he should realize the momentous thought that the little, prattling, thoughtless children by whom he is surrounded are to become the men of the approaching age. As a necessary consequence of all this, he should carefully look to the predilections of children. That child who is amusing himself with drawing triangles and circles may, under proper training, hereafter become another Pascal; that little dirty urchin who is pluck-

ing flowers by the wayside may become the poet or the orator of his age; that thoughtful, feeble body who is watching the effect of the steam, as it blows and puffs from the tea-kettle, may become another Watt, destined to multiply the resources of our national wealth and power; that ruthless little savage who is leading mimic battles of the snow-storm may become (unless his evil tendencies are counteracted by education) another Napoleon, who may seize with a giant grasp the iron thunderbolt of death, and on the wreck of a people's hopes and happiness build himself up a terrible monument of guilt and greatness.

T. TATE.

HOW TO SUCCEED.

TRAIN up children in diligence, if ever you desire that they should excel in anything. Diligence puts almost everything in our power; and will, in time, make children capable of the best and greatest things.

ARCHBISHOP TILLOTSON.

THE SOCRATIC METHOD.

"THE Socratic method" of instruction was singularly appropriate to the idea of education of which we have been speaking. The method of question and answer, beginning with some simple principle which was well understood and acknowledged by both parties, and progressing, step by step, through unforeseen stages to an unexpected but unavoidable conclusion, in all which process the minds of both teacher and pupil

are not only awakened to their utmost activity, but act and re-act upon each other in direct intercourse and perpetual intercommunion. This method, if not originated by Socrates, was conducted with such consummate skill to such brilliant results, that it has ever since been called "the Socratic method." Socrates knew that influence, to be deep, must be living and personal; that instruction, to be effective, must be appropriate and direct. He knew that if he would mould the character and the conduct of the young to his liking, mind must grapple with mind, and heart beat to heart, and spirit interpenetrate spirit. This could be done only by oral communication. This was done, and done effectually, by the Socratic method. "When I heard Pericles or any other great orator," says the pleasure-loving yet aspiring Alcibiades, "I was entertained and delighted, and I felt that he had spoken well. But no mortal speech has ever excited in me such emotions as are kindled by this magician. Whenever I hear him I am, as it were, charmed and fettered. My heart leaps like an inspired Corybant. My inmost soul is stung by his words as by the bite of a serpent; it is indignant at its own rude and ignoble character. I often weep tears of regret, and think how vain and inglorious is the life I lead. Nor am I the only one that weeps like a child and despairs of himself. Many others are affected in the same way." No book can speak with such power to the heart and conscience of the student. No mere text-book teacher ever exerts such an influence. He must first digest his books—all books, the books of men and the books of God—in his own soul, and then infuse himself into the souls of his pupils. And before

he can do this, he must enter into their minds, draw them out and absorb them, as it were, into himself. Then he can understand them, and insinuate himself into them. Then they can understand him, and accept his teachings and receive his impress. It must be a mutual process, action and reaction, question and answer. Such was the Socratic method.

WILLIAM S. TYLER.

THE DUTY OF SCHOLARSHIP.

MUCH as I value the knowledge of the principles which underlie the art of teaching, I set a far higher value on the thorough mastery of the subjects taught. I would much rather have my child instructed by a teacher who had mastered the subject taught, and who trusted to his familiarity with it in all its parts for suggestions as to the best method of presenting it, than by one who, with an inferior equipment of knowledge, made it an invariable rule of practice to proceed from the concrete to the abstract, from the known to the unknown in his teaching. And so I say that the first duty of the teacher, and the one which demands special emphasis at this time, is the duty of scholarship.

JOHN TETLOW.

A MATURE MIND.

A VIGOROUS and mature mind is one in which the real relations of things, and not their accidental connections, bring them forward and determine either their continuance as objects of thought or their speedy dismissal.

ISAAC TAYLOR.

TRAINING THE OBJECT OF EDUCATION.

It is well to bear in mind that principles may be plain, though the working out of the principles may be far from plain, but may become, for a time and in single instances, a matter of almost pure faith, as every failure is visible, and success very often not so. It cannot, however, admit of doubt that training is the object of education, however people may differ about the means. It can scarcely be denied that spreading the efforts over too wide a surface is not training. This narrows the question to some such limits as these. Let the mind be exercised in one noble subject—a subject, if such can be found, capable of calling into play reasoning powers, fancy, imagination, strength, activity, and endurance, and be sure that in the intervals of work there will be plenty of time for less exhaustive pursuits. The weak man's work is the strong man's play. If the subject also itself embraces a wide field of knowledge, so much the better; working in a pretty country is better than working in a dull one. The universal consent of many ages has found such a subject in the study of Greek and Latin literature—the classics, as they are familiarly called.

EDWARD THRING.

A MISFORTUNE.

IMPORTANT as natural history, and especially physiology, may be, I venture to wish rather than to hope that the older studies which relate to the mind may retain that supremacy which seems rightly to belong to them in comparison with all that relates to the structure

of men and animals. A very distinguished scholar has startled us lately by recording the fear that the knowledge of Greek can hardly be expected to maintain its present level in England; many persons will receive this expression of opinion, from a calm, well-qualified judge, with the pain which results from the conviction that it is sound, and that the principle may be extended further. A decline in the state of Greek scholarship implies even more than the failure of esteem for the most valuable and influential of all languages; it involves with it a gradual but certain decay of general culture, the sacrifice of learning to science, the neglect of the history of man and of thought for the sake of facts relating to the external world.

I. TODHUNTER.

THE first condition of success is an honest receptivity and a willingness to abandon all preconceived notions, however cherished, if they be found to contradict the truth.

JOHN TYNDALL.

EQUAL EDUCATION FOR MEN AND WOMEN.

SCHOOLS for general culture are designed for the development of the individual to secure mental growth and power, facility and justness of mental action. We find in the intellectual capabilities necessary to enable either sex to gain the advantages of such schools no difference. Such specialties as divide our professional schools from the schools for general culture will be found fit or unfit for the training of the feminine mind, accord-

ing to the uses to which, in a business or professional way, that mind is to be put, just as would be the case were a masculine mind considered. The whole field of literary and scientific culture lies equally open to either. With equal right the highest training of these powers is freely conceded.

H. S. TARBELL.

EARLY INSTRUCTION IN MUSIC.

SUCH is the constitution of society at the present day that no education can be called finished which does not embrace some knowledge of music. For the acquisition of its principles the period of school life offers the greatest facilities. The mind is plastic, and in its most receptive state; the emotions, the sympathies are in full play. Voice and ear, so obedient to external impressions, are flexible and susceptible to cultivation. If there be any supposed incapacity, any lack of "musical ear," as it is called, it may with almost absolute certainty be overcome. It frequently happens that children, apparently deficient in ear and voice, rapidly attain both under suitable training, and ultimately excel those more gifted by nature. A great mistake is therefore committed in excluding any child from the benefits of musical instruction on account of apparent incompetency.

The surroundings of the schoolroom are also exceedingly favorable to real progress. The association of numbers, the laudable ambition to excel, excited by class practice, afford a powerful stimulus, and give the teacher an advantage which individual tuition can never acquire.

. . . With children the teacher has a power of creation ; with adults he is dependent on circumstances. In one case he educates, in the other he has to amend the defects of education. Usually with the best efforts of both teacher and pupil, only respectable mediocrity can be attained. The postponement of musical instruction in a great measure accounts for the superficiality in music which so generally prevails. It must account for the toleration of musical charlatans, novices in musical science, who startle by unheard-of feats in execution, and who are patronized and admired by the multitudes who prefer novelty and brilliancy to a substantial and consistent culture.

EBEN TOURJEE.

In a well-organized society, though no one can attain to universal knowledge, it should nevertheless be possible to learn everything.

TALLEYRAND.

PHYSICS AND CULTURE.

By the study of physics we have opened to us treasures of power of which antiquity never dreamed ; we lord it over Matter, but in so doing we have become better acquainted with the laws of Mind ; for to the mental philosopher Nature furnishes a screen against which the human spirit projects its own image, and thus becomes capable of self-inspection.

Thus, then, as a means of intellectual culture, the study of physics exercises and sharpens observation ; it brings the most exhaustive logic into play ; it com-

pares, abstracts, and generalizes, and provides a mental imagery admirably suited to these processes. The strictest precision of thought is everywhere enforced, and prudence, foresight, and sagacity are demanded. By its appeals to experiment, it continually checks itself, and builds upon a sure foundation.

Thus far, we have regarded the study of physics as an agent of intellectual culture; but, like other things in nature, it subserves more than a single end. The colors of the clouds delight the eye, and no doubt accomplish moral purposes also; but the selfsame clouds hold within their fleeces the moisture by which our fields are rendered fruitful. The sunbeams excite our interest and invite our investigation; but they also extend their beneficent influences to our fruits and corn, and thus accomplish not only intellectual ends, but minister, at the same time, to our material necessities. And so it is with scientific research. While the love of science is a sufficient incentive to the pursuit of science, and the investigator, in the prosecution of his inquiries, is raised above all material considerations, the result of his labors may exercise a potent influence upon the physical condition of man.

JOHN TYNDALL.

HABITS IN THE GRISTLE.

“How can people remember to turn out their toes at every step all their lives?” was the question of a little fellow to his mother, when she was seeking to impress upon him the duty of attending to his “walk”; and he had to be told that they do not remember, but that they

get into such a strong habit of doing what she recommended, that it would be unnatural for them to do otherwise. But it is quite similar in matters of more importance; so it is only when the student is caught early enough, and trained thoroughly enough, that the right matter and manner of discourse will become habitual with him, and he will be able to use all the finest qualities of style and all the best graces of elocution unconsciously and as matters of course; and it is only *then* that they will be of the highest service to him.

Mark the qualifications, however. He must be caught early enough. Attention to these things, 'as ends in themselves, will do him grievous harm at a later stage in his history, when, for example, he is in the thick of his duties as a preacher and pastor, or in the midst of multitudinous engagements at the bar. The effect then will be to spoil nature, while yet he never can acquire such ease as to make art natural. It will make him stilted, self-conscious, and manneristic. If we wished to injure a preacher who is in actual work, one very sure way of doing so would be to set him then to the study of these things; but, on the other hand, if we desired to prepare a young man for doing effective service as a speaker, we should take care that while he is as yet in his formative stage, and, so to speak, in the gristle, with his habits yet to be acquired, he should be committed to the care of a wise teacher, to learn the arts of reasoning and composition, and, if possible, to that of a still wiser teacher, to take lessons in elocution.

CLEAR THOUGHT, CORRECT JUDGMENT.

IF we have made mistakes, careful study may teach us better ; if we have quarrelled about words, the enlightenment of the understanding is the best means to show us our folly ; if we have vainly puzzled our intellects with subjects beyond human cognizance, better knowledge of ourselves will help us to be humbler. Life, indeed, is higher than all else ; and no service that man can render to his fellows is to be compared with the heavenly power of a life of holiness. But next to that must be ranked whatever tends to make men think clearly and judge correctly. So valuable, even above all things (excepting only godliness), is clear thought, that the labors of the statesman are far below those of the philosopher in duration, in power, and in beneficial results. Thought is now higher than action, unless action be inspired with the very breath of heaven ; for we are now men, governed by principles, if governed at all ; and cannot rely any longer on the impulses of youth or the discipline of childhood.

FREDERICK TEMPLE.

EDUCATING CONDITIONS.

WE prolong life and growth by the food we eat at stated times and in formal and in conventional ways. But it is not only by the processes of table-life that we live and grow. There are, besides our meals, the air we breathe every moment, sunlight, sleep, clothing, and the artificial heating of the atmosphere which we keep up. After the same manner we are educated, not by

specific acts of appointed teachers, but by every hour we live, by every breath we draw, by every object we see, by every word we hear, and by the intellectual, moral, social, yea, even the physical atmosphere which surrounds us. It is a serious problem in true pedagogy: How shall we select, apply, and regulate the educating "conditions"? And it is a question for the people rather than for the pedagogues to answer.

J. H. VINCENT.

HOW TO TEACH MORALITY.

MORALITY must be taught as a real science, whose principles will be demonstrated to the reason of all men and to that of all ages. It is only in this way that it will resist all trials.

TALLEYRAND.

RELIGIOUS INSTRUCTION.

THERE is, in the present organization of the world, but one single species of instruction which is applicable to all classes, and embraces all human relations; namely, religion. It awakens and maintains the consciousness of an inner and higher existence, which no chains can reach and no oppression can subdue; and thus is the most efficient teacher of true freedom, and of the recognition of that only equality which sustains all the civic relations, and exists in the sentiments even of the poorest.

VON GENTZ.

MOODY, AND NOT INGERSOLL.

MENTAL development is not necessarily a blessing to the world. It poisons or sweetens according to the use made of the power developed. An Ingersoll poisons the world at a thousand dollars a night, a Moody helps the poor, depressed, conscience-stricken sinner nearer God. Each has studied with care the art of influencing the mind and heart of man. Mental development is of such a nature that it needs to have character development go hand in hand with it.

A. E. WINSHIP.

“DRINK deep, or taste not,” is a direction fully as applicable to religion, if we would find it a source of pleasure, as it is to knowledge. A little religion is, it must be confessed, apt to make men gloomy, as a little knowledge is to render them vain.

WILLIAM WILBERFORCE.

INTELLECTUAL DEVELOPMENT.

EVERY one, whatever his position, may well be supposed to possess the means of developing his own powers, and arriving at the standing of an intellectual man. There is nothing in the nature of any occupation that renders such an expectation extravagant. The uncles of Hugh Miller were highly cultivated men, reading the best books, concerning one of whom he remarks, “There are professors of natural history who know less of living nature than was known by uncle Sandy”; and yet one of them was a harness-maker, and the other a

stone-mason, each laboring industriously at his calling, for daily bread, for six days in the week.

But if we take no account of the acquisition of knowledge and confine ourselves simply to intellectual culture, I apprehend that we shall arrive at substantially the same result. Suppose that our sole object is to develop the powers of the human mind. We must, then, first ask, What are these powers? It will be sufficient for our present purpose to consider the following, as they are allowed to be the most important : Perception, by which we arrive at a knowledge of the phenomena of the world without us ; Consciousness, by which we become aware of the changes of the world within us ; Abstraction and Generalization, by which our knowledge of individuals becomes the knowledge of classes ; Reasoning, by which we use the known to discover the unknown ; Imagination, by which we construct pictures in poetry and ideals in philosophy ; and Memory, by which all these various forms of past knowledge are recalled and made available for the present.

Now if such be the powers conferred on us by our Creator, it must, I think, be admitted that each of them is designed for a particular purpose, and that a human mind would be fatally deficient were any one of them wanting. In our cultivation of mind, then, we must have respect not to one or two of them, but to all ; since that is the most perfect mind in which all of them are the most fully developed. If then, we desire to improve the intellect of man by study, it is obvious that that study will be the best adapted to our purpose which cultivates, not one, but all of these faculties, and cultivates them all most thoroughly. We cultivate our

powers of every kind by exercise, and that study will most effectually aid us in the work of self-development, which requires the original exercise of the greatest number of them.

Supposing this to be admitted, which I think will not be denied, the question will arise, What studies are best adapted to our purpose? This is a question which cannot be settled by authority. We are just as capable of deciding it as the men who have gone before us. They were once, like ourselves, men of the present, and their wisdom has not certainly received any addition from the slumber of centuries. They may have been able to judge correctly for the time that *then was*, but could they revisit us now, they might certainly be no better able than ourselves to judge correctly for the time that *now is*. If any of us should be heard of two hundred years from hence, it would surely be strange folly for the men of A.D. 2054 to receive our sayings as oracles, concerning the conditions of society which will be then existing. God gives to every age the means for perceiving its own wants and discovering the best manner of supplying them; and it is, therefore, certainly best that every age should decide such questions for itself. We cannot, certainly, decide them by authority.

FRANCIS WAYLAND.

WHY NOT BOTH?

THE study of elementary mathematics, therefore, along with the study of classical authors, ought to be imperatively required by all universities. To separate these two branches of study, and to allow students to neglect

one of them, because some persons have a taste for one, and some persons for the other, is to abdicate the functions of education altogether. Universities and colleges do not exist merely for the purpose of enabling men to do what they best like to do ; or for the purpose of offering and awarding prizes for trials of strength, in modes selected by the combatants ; their business is the general cultivation of all the best faculties of those who are committed to their charge, and the preservation and promotion of the general culture of mankind. And it is certain, that of all the persons who derive advantage from a university education, none are more benefited than those who, with a general aptitude for learning, are prevented by the requisitions of such institutions from confining their exertions to one favorite channel. The man of mathematical genius who, by the demands of his college or his university, is led to become familiar with the best Greek and Latin classics, becomes thus a man of liberal education, instead of being merely a powerful calculator. The elegant classical scholar, who is compelled in the same way to master the propositions of geometry and mechanics, acquires among them habits of rigor of thought and connection of reasoning. He thus becomes fitted to deal with any subject with which reason can be concerned, and to estimate the prospects which science offers ; instead of being kept down to the level of the mere scholar, learned in the literature of the past, but illogical and incoherent in his thoughts, and incapable of grappling with the questions which the present and the future suggest. To neglect to demand a combination of these two elements, would be to let slip the only machinery by which universities, as the

general cultivators of the mind, can execute their office.

WILLIAM WHEWELL.

THERE is no business, no avocation whatever, which will not permit a man, who has an inclination, to give a little time every day to the studies of his youth.

WYTTENBACH.

EYES AND NO EYES.

MOREOVER, taking education in its broad sense as the training of all the powers that go to make up the man, I would point out how much science contributes towards increasing the powers of the senses. All science is based, some one has said, on the fact that we have great curiosity and very weak eyes; and science gives men a marvellous extension of the power and range of the acuteness of those eyes. "Eyes and no eyes" is the title of an old story; and it scarcely seems too strong a way of marking the difference between the powers of perception of a cultivated naturalist, and those of the ordinary gentleman ignorant of everything in nature. To the one the stars of heaven and the stones on earth, the forms of the hills and the flowers in the hedges, are a constant source of that great and peculiar pleasure derived from intelligence. And day by day do I see how boys increase their range of sight, and that not only of the things we teach them to see, but they outrun us, and discover for themselves. And the power once gained can never be lost. I know many instances of boys whose eyes were opened at school by the ordinary

natural-science lectures, who have since found great pleasure and constant occupation in some branch of scientific study.

J. M. WILSON.

BRAINS, SIR.

THE truth is, that what man most needs for the business and labor of life is, not so much specific knowledge, as mental aptitude and power. "Education," says Mill, "makes a man a more intelligent shoemaker, if that be his occupation, but not by teaching him how to make shoes; it does so by the mental exercise it gives and the habits it impresses." The abiding, practical result of school-training is soul-power. A knowledge of the facts and principles relating to a given pursuit is very important, but higher than this is that developed strength and ability, that power of discernment and application, which can change the dead facts of knowledge into the living realities of human action and endeavor. Knowledge may guide and enlighten, but discipline gives acumen, strength, self-poise, grasp, inspiration; and these are the lucky winners of success in all the conflicts and emergencies of life. The superficial empiricist, with a stock of scientific facts in his head, but with no clear insight into their causes and relations, is liable to blunder in every new application of his knowledge. Practical facts, to be of practical utility for the purposes of guidance, must be applied by an intelligent mind. "With brains, sir," was Mr. Opie's reply to the student who wished to know with what he mixed his paints, and this answer contains the true practical philosophy of both art and business. The

prime want in getting a living, which Mr. Froude makes the chief end of life is, "brains, sir," — a mind keen-sighted and far-sighted, steady in aim and purpose, and full of faith. Thought is the highest practical result of intellectual training. This is the alchemy that changes plodding toil to many-handed industry, and makes the brain of labor stronger than its muscles. It was Prussian brains that won on the fields of Sadowa and Sedan.

E. E. WHITE.

THE CLASSICS AND MORE TOO.

GOOD literature is, perhaps, on the whole, the most enduring of all the products of human activity. Dead, we call the languages of Greece and Rome, and it is the fashion now to ridicule the idea of devoting so much time in our schools and colleges to the study of dead Greek and Latin. The "new education," so called, lauds the study of science above the study of the ancient classics; the study of nature, that is to say, above the study of man. But is not man at least a part of nature? And is not language the noblest outward attribute of man? Science includes, for instance, what used to be called natural history. The devotees of this branch of scientific inquiry think it a not unworthy employment of time to spend years, or perhaps a life, in observing and discussing the habits of some single species of the lower animals. It might very well happen that an ichthyologist would reckon it a good account to render of himself if, as the result of investigations covering years of his life, he is able to present to the world at last an approximately exhaustive enumeration, description, classifica-

tion of the various fossil and extinct species of fishes that may be found, in faint traces of their prehistoric existence, among the stratified rocks of the planet.

We are far from wishing to disparage the value of such scientific explorations. By all means let us learn the most we can of whatever there is to be known. But surely man himself also is one, and a not insignificant one, among animals, and it is science — why not? — to study man in the monuments that he has left behind him from the distant ages of his life and activity on the earth. The languages in which the ruling races of mankind did their speaking and their writing, generation after generation, the literatures which embalmed for all future time the thought, the feeling, the fancy, and the recorded actions of those myriad millions of the foremost of our fellow-men — surely, say we, these languages and these literatures are worthy of the attention from us that they have commanded and that they command, if it be only on the score of their being a part of science itself. Is not man, even as just an interesting animal, an object of study at least equal in importance to fishes? And shall we not continue, as lovers of science, if no longer as classical linguists, to teach our children how the world's gray fathers spoke and wrote, and what they thought, felt, fancied? And this, although their languages be now dead, if languages can indeed be dead that live in literatures which are immortal.

W. C. WILKINSON.

MATHEMATICS PROMOTES CIVILIZATION.

THUS the experiment on education, which has been going on from the beginning of Greek civilization to

the present day, appears to be quite distinct and consistent in its result. And the lesson we learn from it is this : that so far as civilization is connected with the advance and diffusion of human knowledge, civilization flourishes when the prevalent education is mathematical, and fades when philosophy is the subject most preferred. We find abundant confirmation of the belief, that education has a strong influence upon the progress of civilization ; and we find that the influence follows a settled rule ; when the education is practical teaching, it is a genuine culture, tending to increased fertility and vigor ; when it is speculative teaching, it appears that, however the effect is produced, men's minds do, in some way or other, lose that force and clearness on which intellectual progression depends.

WILLIAM WHEWELL.

TRADE SCHOOLS.

TRADE schools have not played much of a part in the United States. The pupils of our schools, generally speaking, do not know, and cannot know, what they are to do in life ; and the notion has been widely spread that it is well that all the teaching that is given in school should be of a general character, such as is fitted to train the mind in the best way, and that the pupil should be left to acquire subsequently to school and independently of it, the special knowledge and the special skill needed for that occupation which he shall, as things turn out, come to adopt. This has been true in a high degree in the past. How about the future ? Is it desirable that trade schools should now be grafted on

to our system? Has the time come in the development of our people, when it should be taken for granted that a boy or a girl is to pursue a certain occupation in life, and that his or her education in school should be directed to that end?

FRANCIS A. WALKER.

MORAL INSTRUCTION.

THERE is the greater need that moral instruction in this country be given in the public school and to all classes, because the changes in society are so rapid and continued. If we had here higher classes and lower classes, which approached, as in Europe, somewhat to the immovable form of castes; if the child, as a regular thing, took the calling and position of the parent, there would be a greater simplicity of moral instruction possible. Without fail, on that supposition, unchangeable habits of thinking, unalterable rules of conduct, would form themselves in each stratum of society, and instruction within each stratum would be confined practically to the correction of the errors that might there grow up. But as our country is, there are no fixed grades of society. All positions are open to all, and thus there may be brought by each new-comer to his new sphere of life some new opinion to correct, or to deprave the standard already existing. We must educate all, then, on the universal principles of morality applicable to all places in life, to the servant's place and the master's, to the citizen's and the legislator's, to the farmer's and the merchant's. If our boys go from the country school and the plough to the city, and

there rise to the highest mercantile standing, they must be forearmed and made ready by sound principles for the new sphere of their activity. Nowhere do men change employments so often and so entirely as here. Nowhere, therefore, can we calculate so little on fixed habits within callings; nowhere can we be less sure that the moral tone will not degenerate. Happily, nowhere is there so much hope that the moral tone may improve.

THEODORE DWIGHT WOOLSEY.

OF REASONING.

IF it were inquired what is to be regarded as the most appropriate intellectual occupation of man as man, what would be the answer? The statesman is engaged with political affairs; the soldier with military; the mathematician with the properties of numbers and magnitudes; the merchant with commercial concerns, etc. But in what are all and each of these employed? Evidently in reasoning.

RICHARD WHATELY.

OF DRAWING.

WHILE treating of the education of the perceptive powers, I should have spoken of drawing as an important auxiliary. The acquisition of this accomplishment calls into exercise the most earnest use of the perceptive powers. It gives accuracy to the eye. It develops the taste, and teaches to select and dwell upon the elements of the beautiful. With proper instruction, this delightful art might be learned as universally as pen-

manship. That we could make every pupil an accomplished draftsman, I do not affirm, any more than that we can make every one a finished penman. We should, however, improve the perceptive powers and the taste of all ; and wherever a talent for the fine arts has been bestowed, we should thus arouse it from its slumber, and place it at once in the course of development.

FRANCIS WAYLAND.

REFINED TASTES.

IT has been doubted whether painting and music should be taught to young ladies, because much time is requisite to bring them to any considerable degree of perfection, and they are not immediately useful. Though these objections have weight, yet they are founded on too limited a view of the objects of education. They leave out the important consideration of forming the character. I should not consider it an essential point that the music of a lady's piano should rival that of her master's, or that her drawing-room should be decorated with her own paintings rather than those of others ; but it is the intrinsic advantage which she might derive from the refinement of herself that would induce me to recommend an attention to these elegant pursuits. The harmony of sound has a tendency to produce a correspondent harmony of soul ; and that art, which obliges us to study nature in order to imitate her, often enkindles the latent spark of taste, of sensibility for her beauties, till it glows to adoration for their author and a refined love of all his works.

MRS. EMMA WILLARD.

HIGHER EDUCATION OF WOMEN.

A REFORM in the present methods of educating young women, which I take it for granted is the meaning of the demand for a higher education of women, can only be brought about by parents giving the same care and attention to the education of their daughters that they give to that of their sons. This will require an abandonment of the idea that a girl's education is to be completed before she is eighteen or twenty years old. It will require a protest against the veneering processes of our fashionable schools, and the cramming methods of our normal college. It will require for the present, as the most practicable solution of the difficulty of procuring the best training for our young women, — at all events, for those who desire it, — that our colleges should furnish the same privileges for girls that they do for boys. This does not necessarily involve co-education. It can be accomplished without it or with it, as the question of convenience or expense may determine. The just and reasonable demand of woman is, that it shall be made possible for her to procure as good an education and as thorough a training in any branch of knowledge as it is possible for a man to acquire; and until this demand is complied with, either by opening the doors of our colleges and universities to women, or by establishing colleges especially for them, we shall be perpetuating a grievous wrong, and at the same time neglecting one of the surest means of increasing the sum of human happiness and the possibilities of human energy.

ANDREW D. WHITE.

ORIGINAL PAINTINGS.

SEARCH into things yourselves, as well as learn them from others ; be acquainted with men as well as books ; learn all things as much as you can at first hand ; and let as many of your ideas as possible be the representations of things, and not merely the representations of other men's ideas. Thus your soul, like some noble building, shall be richly furnished with original paintings, and not with mere copies.

ISAAC WATTS.

MANUAL TRAINING-SCHOOLS.

I CLAIM that the manual training-school furnishes the solution of the problem of labor *versus* capital. The new education gives more complete development, versatility, and adaptability to circumstance. No liberally trained workman can be a slave to a method, or dependent upon the demand for a particular article or kind of labor. With every new tool and new process the cultivated artisan rises to new spheres of usefulness and to new dignity. In earlier times, when the day-laborer was little better than a machine, with no freedom or amplitude, almost helpless and useless away from his crank, progress was well typified by a ruthless car, which, with most unequal and cruel pressure, ground to powder the unfortunates under its wheels, who had no elasticity, no power of escape.

When the new education shall have fully come, progress will be better represented by the ship of state, which rests gently and gracefully upon all, without inequality or oppression. Rigidity has given place to

fluidity. The elements yield and do not break. Thus, without friction or oppression, and hence without bitterness and strife, shall our progress be made. The sense of hardship and wrong will never come, and bloody riots will cease when workmen have such mechanical culture that the invention of a new tool, a grand labor-saving machine, only adds new power and dignity to their skilful hands.

C. M. WOODWARD.

THE TEMPERANCE REFORM IN SCHOOLS.

“THE burgomasters of the future” are the boys whom you will welcome back from their vacation rambles and exploits, in a few weeks from now; the merry girls now engaged in picnic games and seaside pastimes are to be the wives and mothers of the Republic’s second century. This temperance reform means more, for their future weal or woe, than any other to which their teachers’ influence can, by any possibility, be given; and the opinions they form at school, by which the example of their lives will be controlled, are of more import this day to the land we love than all the fine-spun “issues” on which political parties are impotently endeavoring to feed. The relation of the teacher to this reform is then, important, intimate, vital. He moulds in clay, while the temperance agitators are pounding away on marble. He forms, while they almost vainly endeavor to re-form. It is in his power to organize victory for the future of a noble cause, by the justness of his arguments and the quiet persuasion of his example. The teacher has a fair field comparatively to contend with. There is hardly a parent, even though he be himself a drunkard or a mod-

erate drinker, who would object to have his children taught what he will be quite certain to admit is, for them, the "more excellent way" of never beginning to drink at all. In this age of science, none can object to the chemical and physiological lessons which indicate that total abstinence is consistent with nature and with reason, and all must commend the inculcation of that law of kindness which "counts in" our brother's danger along with our own, in making up the summary of reasons why a boy or a girl should "touch not, taste not, handle not."

MISS FRANCES E. WILLARD.

IT has seemed to me that the highest range of human talent is distinguished, not by the power of doing well any one particular thing, but by the power of doing well anything which we resolutely determine to do.

FRANCIS WAYLAND.

INSTRUCTORS IN JUSTICE.

As the children in the schools of Greece were trained in the knowledge of learning and liberal arts, the children of the Persians attended their schools for the sake of learning justice. In order to accomplish this object the more quickly, it was not thought sufficient to accustom only their ears to instruction in justice, but they were taught to give just opinions on all matters which came up among them, and to fix upon the proper punishment for every error. Thus the teachers, as public instructors in justice, devoted a large part of the day to hearing and correcting these opinions of the children.

XENOPHON.

TALENT AND VIRTUE.

GREAT ill is an achievement of great powers ;
Plain sense but rarely leads us far astray.
Reason the means, affections choose our end ;
Means have no merit, if our end amiss.
If wrong our hearts, our heads are right in vain ;
Hearts are proprietors of all applause,
Right ends and means make wisdom : worldly-wise
Is but half-witted, at its highest praise.
Pygmies are pygmies still, though perched on Alps,
And pyramids are pyramids in vales.
Each man makes his own stature, builds himself :
Virtue alone outbuilds the pyramids :
Her monuments shall last, when Egypt's fall.

EDWARD YOUNG.

As words may be considered the garment of thoughts,
so may language collectively be considered a picture of
the soul. And since, therefore, thou findest pleasure in
adorning thy body, do thou not bestow less care upon
thy speech, which is the body of thy mind.

ZCHOKEE.

MAN should act worthily of heaven.
In this world he should do good, out of a pure heart.
He should be pure in thought, word, and action.
He should strive only after what is morally good.
He should be holy, speak truth, and do no wickedness.

ZOROASTER.

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